

# PRODUCT CATALOGUE 2023/24

## ERNST HINRICHS Dental



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## ERNST HINRICHS Dental

### 1888

Company founded by ERNST HINRICHS in Osterode. The first dental impression and model plasters are developed with dentist Dr. Kühns.

### 1920

The sons Ernst and Richard Hinrichs join the company. The first "Hinrizit" hard stones and gypsum-bound investments are developed. With the installation of modern electric sifters and screening machines, the quality of the dental preparations is being constantly improved and their further development tailored to dental engineering. In 1936, the first soldering compound "L 36" is developed.

### 1938

The company celebrates its 50th anniversary. Already at this time, ERNST HINRICHS is distributing its products through dental wholesale partner firms. The customer base includes Germany and a number of countries in Europe and overseas.

### 1945

Because of the Second World War ERNST HINRICHS loses large markets in East Germany and Europe. Thanks to the dedication of all staff, the company's productivity and the high quality standards of its products are successfully assured again in the subsequent rebuilding years.

### 1959

Margot Hanke, daughter of Ernst Hinrichs jr., takes over the management of the company. She succeeds in winning back the international customers to Hinrichs' dental products that were lost by the war.

### 1985

Christian Rehse takes over the management of the company. Under his leadership, the company's market share is enlarged and new high-strength dental stones developed.

### 1988

ERNST HINRICHS celebrates its 100th anniversary. The company participates regularly in the International Dental Fair, in material courses and seminars.

### 1990

The company's expansion requires new production and storage facilities. ERNST HINRICHS leaves its site in Osterode after more than 100 years and establishes a modern company building in Goslar with up-to-date production and storage technology.

### 1995

An additional indoor extension is required. A total of more than 1,000 tons of dental gypsum, abrasives and polishing materials are stored in Goslar. The production technology is modernised by new electronically controlled ploughshare mixers and supplemented by powerful packing machines.

### 1998

Markus Rehse joins the management.

### 2000

Strong sales expansion of phosphate-bonded investment materials and duplicating silicones, the first scannable special super hard stones are introduced to the market.

### 2005

ERNST HINRICHS builds up a further distribution hall and new modern silo and production facilities.

### 2008

With the assumption of another production facility in Bad Sachsa the company strengthens its position as market leader for dental gypsum and investments in Germany and Europe.

### 2010

Introduction of the CAD-CAM consumable product line under the "BioStar" brand

### 2013

ERNST HINRICHS celebrates its 125th anniversary and is now one of the oldest dental companies. Sales start of desktop milling systems

### 2018 / 2019

Acquisition of 2 other well-known dental companies in the field of model creation, wax production, polymerisation & thermoforming technology.

### 2020

Bau eines weiteren Bürogebäudes und einer Logistikhalle. Verstärkung des digitalen Schulungsangebotes, neue Ausstellungsräume für die Digitaltechnik



**125** Jahre  
Innovation, Qualität & Zuverlässigkeit  
**ERNST HINRICHS**





**Our customers can be assured that the products they receive from us are of a consistently high quality.**

**All gypsums are not the same - all investments are not the same - highquality raw materials decide on the quality and the health of the toothtechnical users in the laboratory and in practice.**

Already the used raw materials decide on the quality of the dental gypsums, investments, duplicating silicones, abrasives and polishing agents. So we produce our dental gypsum only on the basis of high-quality pure natural gypsum or synthetic raw materials from the foodstuffs industry. We guarantee that our gypsums do not contain any flue gas desulfurizing gypsum. Also our gypsums do not contain quartz, oxyde or other hardness materials such as modulators, which e.g. cause an increased wear with friction discs.

Working in close cooperation with the nature conservation authorities, we aim to create new habitats for animals and plants in quarry areas. Also with the investments and duplicating silicones the raw materials decide on the later quality of the products.

With the abrasives and polishing agents we use exclusively high-quality assortments with high use duration and tooth-technical suitability. With our untreated and pollution-free pumice powder there is no silicosis danger.

**Quality from start to finish – step by step quality control**

The raw materials are immediately subjected to quality control in the laboratory. They are classified and sorted according to their intended use. After production, the finished products again pass through quality control where they are thoroughly checked before we allow them to be sold on the open market. Our criteria for analysis and assessment are above those for all ISO-norms.



**Storage – simple, if the correct steps are followed.**

Our **gypsum** is always packed in special bags, buckets or cartons. If the containers are closed and stored in a dry room, there is virtually no loss of quality for 18 months. Fluctuations in temperature do not damage gypsum. Storage of gypsum presents no problem.

However, four simple rules must be followed:



Our **investments** will be delivered in sachets or small packing. So they are unopened storable up to two years without quality change. Keep the following rules:

- Never store the expansion liquid under +4°C
- Do not place the investment directly on damp soils,
- The packing must always be locked
- The air humidity must be as low as possible

**1. Do not store gypsum directly on a concrete floor.**

**2. Keep out humidity as low as possible.**

**3. Keep the container always tightly closed.**

**4. Store gypsum at maximum for a three days' supply in a dispenser or silo.**

With the storage of **duplicating silicones** the following points must be considered:

- Store at normal room temperature
- Do not expose to direct sunlight
- Separate strictly the components A and B

For **abrasives, pumice and polishing material** we recommend a dry storage in closed packing.

## 5 types and 5 qualities. HINRICHS has the right gypsum.

### Types and description

The European countries have approved set instructions for dental gypsum. Type 5 for super hard stone with high expansion are a new category. DIN EN ISO 6873, which is binding for all manufacturers, classifies the products as follows:

#### Type 1: Impression Plaster

#### Type 2: Plaster & Articulation Plaster

#### Type 3: Hard Stone

#### Type 4: Super Hard Stone (up to 0.15% expansion)

#### Type 5: Super Hard Stone (up to 0.30% expansion)

Following minimum requirements for the different classes were stipulated:	Standard consistency in mm	Minimum processing time in minutes	Min./Max. hardening time in minutes	Max. hardening expansion in % after 2 hours	Min./Max. compressive strength N/mm <sup>2</sup> after 1 hour
Type 1 Impression Plaster	80 +/- 4	1,25	2,5 / 5,0	0,15	4,0 / 8,0
Type 2 Plaster & Articulation Plaster	75 +/- 4	2,5	6,0 / 30,0	0,30	9,0
Type 3 Hard Stone	30 +/- 3	3,0	6,0 / 30,0	0,20	20,0
Type 4 Super Hard Stone, low exp.	30 +/- 3	3,0	6,0 / 30,0	0,15	35,0
Type 5 Super Hard Stone, high exp.	30 +/- 3	3,0	6,0 / 30,0	0,16 - 0,30	35,0

If comparing the data provided for the various gypsum, please ensure compliance with the times stipulated. Binding expansion must be determined 2 hours after, and pressure resistance 1 hour after water-gypsum contact. If other times or measuring units (e.g. Brinell hardness, hardness) are specified, these are not comparable with the DIN EN ISO 6873 values and will mislead the user. Our quality controls at the plant are in strict compliance with DIN EN ISO 6873.

### Preparations of Impressions

In laboratory practice, problems between the various moulding compounds and gypsum arise time and time again. Since some moulding compounds have an aggressive reaction towards gypsum, pre-treatment is required in order to prevent, for instance, efflorescence on the surface of the gypsum model.

We therefore recommend the following measures:

Material	Alginate	Polyether	Hydrocolloids	Silicones
<b>Properties</b>	Shrinking will occur as a result of moisture loss. Cannot be stored longterm – max. 1 hour; keep moist.	Hydrophilic properties/ Swells if stored for a long time in disinfectant.	Pour out immediately, otherwise the volume will alter considerably.	Stable shape and insensitive without a change in volume.
<b>Preparation</b>	Completely remove saliva- and blood residues. Neutralise by immersing in trimmer water or gypsum powder/Thicken with Neutralgin.	Remove saliva- and blood residues under tap water.	Completely remove saliva- and blood residues under tap water. Neutralise by immersing in trimmer water or gypsum powder, then rinse and immerse in 2% potassium sulphate solution.	Remove blood- and saliva residues under tap water.
<b>Disinfection</b>	With conventional disinfectant or 1% peracetic acid; risk of swelling. Rinse under tap water.	With conventional disinfectant; again a risk of swelling – therefore disinfect only for a short period.	With conventional disinfectant or 1% peracetic acid. Again a risk of swelling. Rinse under tap water.	With conventional disinfectants.
<b>Storage</b>	Pour out after a max. of 60 minutes and protect against drying out with moist wipes.	Good storage stability; relatively insensitive.	Quickly pour out/gypsum with a short setting time are beneficial; prolonged contact adversely affects the surface of the gypsum model.	Cross-linking silicones can be stored for unlimited periods; condensationcross-linked silicones can be stored for a limited period.

Strictly comply with the manufacturer's instructions for use when using moulding compounds and disinfectants.



Implant models, sawcut models, master models

Partial framework (CoCr)

Working models, opposing models, denture work

Denture work, repairs, relines, additions

Planning models, study models, diagnostic models

Bases for dental arches when using dowel pins, pin system

Orthodontic work, demonstration models, extra-white

Articulating

Articulating orthodontic work, fixation of study models

Scannable

## Type 2, Model plaster

Dr. Kühns®							✓		
Articulation							✓		
Mounting Stone							✓		
Non Plus Ultra				✓				✓	
Velox®				✓				✓	
Alamo				✓				✓	
Alamo S				✓				✓	

## Type 3, Hard stone

Hinritz®		✓	✓	✓		✓			
Hinritz® Speed		✓	✓	✓					
Laborit®		✓	✓	✓					
Hinridur®		✓	✓	✓					
Hinridur® S		✓	✓	✓		✓			
Ortho Plaster		✓	✓	✓		✓			
Hinritz® E		✓	✓						
Hinritz Super	✓	✓	✓	✓					

## Type 4, Super hard stone (low expansion)

Hinristone® Saphir	✓								✓
Hinriplast® N	✓								
Hinristone® 20	✓								
Hinristone® 22/24	✓	✓							
Hinristone® Speed	✓								
Japan-Stone	✓								
SH 074	✓	✓	✓				✓		
Die Stone	✓	✓							
Base stone FL						✓			
Base stone						✓			
CAM-Stone N	✓								✓

## Type 5, Super hard stone (high expansion)

HinriDie	✓		✓						
Hinristone® E	✓		✓						



## 1. Preparation

For the best results it is essential that the equipment is clean and free from residue before mixing the gypsum. Any residue would have a negative effect on the setting time and expansion of the mixture. The gypsum should be mixed under vacuum, if possible, and to the exact water/powder ratio. The gypsum should be sprinkled into the water. Follow the manufacturer's instructions for mixing time and speed. Measuring the water/powder ratio by rule of thumb will automatically lead to considerable variations and poor results



## 2. Mixing water

Dental gypsum should be mixed with distilled water in room temperature. Tap water is not recommended because of its varying temperature and its different hardening. Tap water contains minerals, chloride, sulfates and carbonates. The crystallization can be affected negatively and the quality of the dental gypsum be accordingly decreased by these components. If the tap water is extremely hard, the setting time could change.



## 3. Sprinkling

The gypsum must be quickly and evenly sprinkled into the water within 10 seconds. In accordance with DIN EN ISO 6873, timing starts whenever the gypsum and water come into contact. After the gypsum has been soaked for 20 seconds, it can be mixed with a spatula. Mixing in a vacuum mixer improves the quality of the mixture and saves time. Manual mixing requires approx. 60 seconds and mechanical mixing 30 seconds (280 rounds / min. with 5-6 bar). The vacuum should not be set too high when mixing. Impression plaster (type 1) are always mixed manually for 30 seconds. Adding water or gypsum when the consistency is too thick or too thin affects the setting process and damages the crystalline structure of the gypsum.



## 4. Pouring the impression

Only the amount required for two to three impressions should be mixed at a time. The impression should be poured immediately after mixing. Pouring the impression should be completed within the working time. The gypsum begins to crystallize at the end of the working stage. No further work can be carried out because fine details can no longer be accurately reproduced after setting begins. The strength of the gypsum is also greatly reduced. This even happens when using a vibrator, though its use always greatly reduces blows and improves compressive strength and flow. Vibration should be completed before the setting stage.



## 5. Cutting and shaping gypsum

Gypsum have an exact setting time. If hard stone has a setting time (final set) of e.g. 10 - 12 minutes, it can be worked on for approx. 5 minutes (approx. half the setting time). When the surface of the stone loses its shine, it can still be shaped for approx. 1 minute. After this the setting time begins. At this point no further work can be done, as this would affect crystallization.

## 6. Removing the model

The set model must not be removed from the impression until 30 minutes after pouring. Following cleaning, disinfecting and neutralising, alginate and hydrocolloid impressions should be poured immediately with gypsum because they are not volumetrically stable. The impression should be removed after 30 minutes because these impression materials react aggressively with gypsum. It is advisable to leave other impression materials for up to an hour before removing them.



## 7. Setting expansion

All gypsum expand at the final setting. The amount of expansion depends on the composition of the gypsum and the ambient temperature or humidity. According to DIN EN ISO 6873, comparable measurements of expansion can only be made under the same conditions. **Please note** that the percentage expansion of the gypsum must be measured after two hours. Compressive strength is measured in N/mm<sup>2</sup> after one hour. The standards given on page 6 are compulsory. Ensure that standards and times given are accurate when making comparisons. In practice, some expansion is necessary to compensate for the contraction of other materials. Shrinkage occurs if the model is stored at room temperature and low humidity over a longer period. If the model is soaked, as it is sometimes necessary, expansion of the gypsum increases slightly. Our gypsum are well below the expansion values allowed by the DIN standard.



## 8. Preparing the impression

Problems continually arise in the laboratory between different impression materials and gypsum. Since some impression materials react with gypsum, laboratory assistants must complete the following preparations to obtain an accurate gypsum model with a smooth surface.



## 9. Sawing and preparation

It is advisable to saw, prepare and trim dental arches within two hours of removing the impression. If models have to be sawn or prepared much later than that, they can be soaked briefly to prevent gypsum chipping off.

**Tip: Placing old gypsum models in the water saturates it with calcium sulphate to prevent washing out.**

## 10. Boiling out – steam-cleaning – cleaning

These standard laboratory procedures, which are often unavoidable, must be carried out very carefully. Gypsum models should never be exposed to sudden changes in temperature. We strongly recommend immersing the model in warm water at approx. 50°C for a few minutes to avoid chipping or even completely destroying the model. Steam-cleaning the model can also lead to surface abrasion. In many cases it is better to clean the model using a soft brush and a soap solution.



# Model plaster type 2



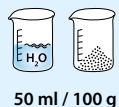
Natural stone

## Dr. Kühns® special plaster with peppermint flavour

A fast setting, high precision special plaster with peppermint smell, which is mainly used as a fast setting articulation plaster. Dr. Kühns® is easy to handle, has a creamy consistency and guarantees an exact impression with a very low expansion.

Use recommendation: impression, articulation

**natural white, pink**



50 ml / 100 g



1,5 min.



2,5 min.



2 h



15 MPa

1 h



20 MPa

24 h



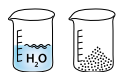
Natural stone

## Mounting Stone

Controlled, extra-white plaster for accurate impressions and for articulation. Minimum setting expansion and excellent positional stability. When articulating, the quick setting time guarantees that models are articulated very accurately and efficiently.

Use recommendation: articulation, milling bases

**snow white**



56 ml / 100 g



1,5 min.



2-3 min.



2 h



18 MPa

1 h



35 MPa

24 h

Model plaster, type 2	Colour	paper bag 5 kg REF	carton á 4 x 5 kg paper bags REF	carton 20 kg REF	paper bag 25 kg REF
Dr. Kühns® special plaster	natural white	101110	101112	101117	101114
	pink	100110	100112	100119	100114
Mounting Stone	snow white	-	-	-	105006 (22,7 kg)

### Correct model fabrication

An accurate impression taken by the dentist and a precisely reproduced gypsum model are the basis for the work to be carried out by the dental technician and are crucial to the accuracy of the finished restoration. Our gypsum are easy to use, but despite that many mistakes are made due to a lack of knowledge of correct procedures. We are happy to offer you the benefit of our many years' experience. Please contact us if you would like a course or seminar for your customers or employees on the correct use and right choice of gypsum. We would also be happy to come to you and carry out this training for your customers on your behalf. Please telephone or fax us if you require any help with specific problems when using the gypsum. Our experienced technicians will be happy to assist you.



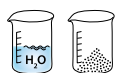
## Articulation plaster, natural

with lemon smell

For articulation works, bite indices, transfer bases fixation of orthodontic bases, bite registration, overcasts and milling bases. Low expansion and excellent positional stability and high sticking strength.

Use recommendation: articulation, milling bases

**natural white**



40 ml / 100 g



3 min.



4,5 min.



2 h



1 h



24 h

Natural stone

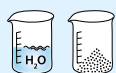


## Articulation plaster, synthetic

For articulation works, bite indices, transfer bases fixation of orthodontic bases, bite registration, overcasts and milling bases. Low expansion and excellent positional stability and high sticking strength.

Use recommendation: articulation, milling bases

**super white**



30 ml / 100 g



3 min.



4,5 min.



2 h



1 h



24 h

Synthetic stone



Model plaster, type 2	Colour	paper bag 5 kg REF	carton á 4 x 5 kg paper bags REF	carton 20 kg REF	paper bag 25 kg REF
Articulation, Natural stone	natural white	100100	100102	100109	100104
Articulation, Synthetic stone	super white	100950	100952	100959	100954

# Model plaster type 2



Natural stone

## Velox®

Made from pure Harz alabaster. Volumetrically stable. Contains 25% of hard stone. A material with a controlled expansion for the user. Specially developed with a short working and setting time.

Use recommendation: Study models, planning models, diagnostic models

natural white



50 ml / 100 g



5-6 min.



10-12 min.



2 h



15 MPa

1 h



20 MPa

24 h

## Non Plus Ultra

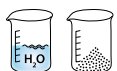
Made from pure Harz alabaster. Volumetrically stable. Contains 25% of hard stone. A material with controlled expansion for the user. Specially developed with a long working and setting time.

Use recommendation: Study models, planning models, diagnostic models

natural white



Natural stone



50 ml / 100 g



10-12 min.



18-22 min.



2 h



12 MPa

1 h



17 MPa

24 h

## Alamo

Natural stone

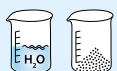
A laboratory model plaster for pouring models and formers. Used especially for basing. High quality with a limited expansion. Contains 20% of hard stone with a long setting time.

Use recommendation: Study models, planning models, diagnostic models

natural white



Natural stone



50 ml / 100 g



10-14 min.



18-25 min.



2 h



12 MPa

1 h



17 MPa

24 h

## Alamo S

A quick-setting model plaster made from high-grade alabaster. Contains 20% dental hard stone. Controlled expansion. Easy to use. Prices on request.

Use recommendation: Study models, planning models, diagnostic models

**natural white**



50 ml / 100 g



5-6 min.



12-14 min.



2 h



12 MPa

1 h



17 MPa

24 h



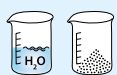
Natural stone

## Ehodit semi-hard stone

Used for laboratory work where a hard stone is too hard and a model plaster is too soft. Especially suitable for acrylic work. Gives optimal results and is more easily devested.

Use recommendation: denture work, repairs, relines, additions, study models

**blue, green, natural white**



40 ml / 100 g



5-6 min.



10-12 min.



2 h



20 MPa

1 h



40 MPa

24 h



Natural stone

Model plaster, type 2	Colour	carton 20 kg REF	paper bag 25 kg REF
Velox®	natural white	100139	100134
Non Plus Ultra	natural white	100129	100124
Alamo	natural white	100149	100144
Alamo S	natural white	100159	100154
	blue	101627 (25 kg)	101624
Ehodit semi-hard stone	green	101647 (25 kg)	101644
	natural white	100169 (25 kg)	100164

# Hard stone type 3



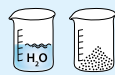
Natural stone

## Hinrizit®

A double grained hard stone for a broad range of applications in dental technology. Made from specially selected natural rock with permanent volumetric stability. This material has high compressive strength and a very smooth surface and is extremely accurate. Exceptionally white natural stone is used to provide a high degree of whiteness for orthodontic work.

Use recommendation: working models, opposing models, denture work, repairs, relines, additions, orthodontic work, demonstration models extra white

blue, yellow, super white



30 ml / 100 g



5-6 min.



10-12 min.



2 h



1 h



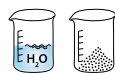
24 h

## Hinrizit® Speed

Conventional hard stone with a very short setting time, but with no loss of compressive strength or accuracy. Especially suitable for quick repairs and urgent work. Impressions can be removed after just 10 minutes.

Use recommendation: working models, opposing models, denture work, repairs, relines, additions

yellow, blue



30 ml / 100 g



2-3 min.



5-6 min.



2 h



1 h



24 h



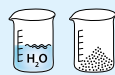
Natural stone

## Hinridur®

Manufactured using a special procedure. A very cost-effective, but high-quality natural stone. Supplied in a variety of colours. Extreme hardness and edge stability with low expansion and excellent flow properties.

Use recommendation: working models, opposing models, denture work, repairs, relines, additions, study models

yellow, blue, green, natural white



30 ml / 100 g



5-6 min.



10-12 min.



2 h



1 h



24 h



Natural stone

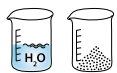
Hard stone, type 3	Colour	paper bag 5 kg REF	carton á 4 x 5 kg paper bags REF	carton 25 kg REF	paper bag 25 kg REF
Hinrizit®	blue	100200	100202	101209	100204
	yellow	100210	100212	101215	100214
Hinrizit® for orthodontics	super white	100230	100232	101239	100234
Hinrizit® Speed	blue	101242	-	101245	101240
	yellow	102110	-	102119	102114
	yellow	100810	-	100817	100814
Hinridur®	blue	100820	-	100827	100824
	green	100840	-	100847	100844
	natural white	100830	-	100837	100834

## Hinridur® S

A creamy synthetic hard stone especially suitable for prosthetics and orthodontics. The super white colour is specially recommended for orthodontics works.

Use recommendation: working models, opposing models, denture work, repairs, relines, additions, study models, orthodontic work, demonstration models extra white

**yellow, blue, super white**



30 ml / 100 g



5-6 min.



10-12 min.



2 h



23 MPa

1 h



50 MPa

24 h



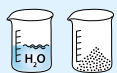
**Synthetic stone**

## Laborit®

High-quality hard stone with high compressive strength and excellent working properties. This tried and tested natural stone exhibits low expansion, excellent flow property and volumetric stability.

Use recommendation: working models, opposing models, denture work, repairs, relines, additions

**yellow**



30 ml / 100 g



5-6 min.



10-12 min.



2 h



25 MPa

1 h



58 MPa

24 h



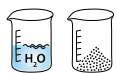
**Natural stone**

## Ortho Plaster

Specially for orthodontic and study models. Easy to mix and flows well. Harder than standard orthodontic stones. Easy to trim and smooth with a shiny, snow white surface.

Use recommendation: working models, opposing models, denture work, repairs, relines, additions, orthodontic work, demonstration models extra white

**snow white**



35 ml / 100 g



7-8 min.



12-15 min.



2 h



35 MPa

1 h



45 MPa

24 h



**Natural stone**

Hard stone, type 3	Colour	paper bag 5 kg REF	carton 25 kg REF	paper bag 25 kg REF
Hinridur® S	yellow	108101	108147	108144
	blue	108201	108247	108244
	super white	108301	108347	108344
Laborit®	yellow	100220	100229	100224
Ortho Plaster	snow white	-	104906 (22,7 kg)	-

# Hard stone type 3



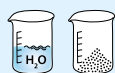
Natural stone

## Hinrizit® E

Hinrizit® E is a special formulated dental stone with a high setting expansion. This special gypsum is used for the model creation and the investing during the use with dental acrylics where a high expansion is necessary to compensate the shrinkage of the acrylic dentures (e.g. SR Ivocap Injection System). Hinrizit® E is also usable for all flexible resins (e.g. Valplast; Flexstar / Nobilium).

Use recommendation: acrylic dentures

natural white



25 ml / 100 g



5-6 min.



10-12 min.



2 h



1 h



24 h



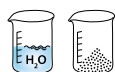
Natural stone

## Hinrizit® Super with a content of super hard stone, type 4

Hinrizit® Super is harder as normal hard stones cause of the content of a super hard stone. This special stone is ideal for the production of periodontal splints, model casting prosthesis, different regulations and for all indications where a regular hard stone is too soft and a super hard stone is too hard and expensive.

Use recommendation: working and checkbite casts, acrylic dentures, repairs, relines, situation casts.

grey, white, mint



26 ml / 100 g



5-6 min.



10-12 min.



2 h



1 h



24 h

Hard stone type 3	Colour	paper bag 5 kg REF	carton á 4 x 5 kg paper bags REF	carton 25 kg REF	paper bag 25 kg REF
Hinrizit® E	natural white	102250	102251	-	-
	grey	102130	-	102139	102134
Hinrizit® Super	white	102140	-	102149	102144
	mint	102150	-	102159	102154

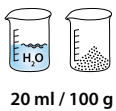


## Hinristone® Saphir

An extremely hard super hard stone with a snap-set effect (long working time). You can demould the die stone after 30 minutes and work on it. Hinristone® Saphir has a very creamy flowing property with a high thixotropy and low expansion. The extraordinary colours depend on special compounds which are scanable, absolutely homogenous and free from reams.

Use recommendation: implant models, saw-cut models, master models, scannable

**golden brown, ivory, maize yellow, light grey, super white**



20 ml / 100 g



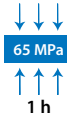
6-8 min.



12-14 min.

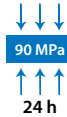


2 h



65 MPa

1 h



90 MPa

24 h



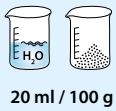
Synthetic stone

## Hinriplast® N resin-reinforced

Hinriplast® N is a resin-reinforced, fine-flowing super hard stone for the highest technical requirements with extremely smooth surface and an unusually edge stability. Owing to the employment of again-developed resin additives now a clearly longer stability in storage is reached.

Use recommendation: implant models, saw-cut models, master models

**golden brown, ivory, apricot, pearl-grey**



20 ml / 100 g



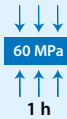
7-8 min.



14-16 min.

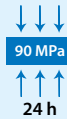


2 h



60 MPa

1 h



90 MPa

24 h



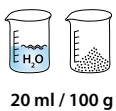
Synthetic stone

## Hinristone® 20

A fine flowing and thixotropic super hard stone with an exceptional hardness. Outstanding edge stability and compressive strength, very good resistance to scratching and breakage while having a minimum expansion. Also available as Hinristone Speed, where a quick setting time (6-7 minutes) is desired.

Use recommendation: implant models, saw-cut models, master models

**golden brown, yellow, green, white**



20 ml / 100 g



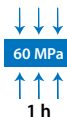
6-7 min.



12-14 min.

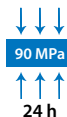


2 h



60 MPa

1 h



90 MPa

24 h



Natural stone

Super hard stone type 4	Colour	paper bag 5 kg REF	carton á 4 x 5 kg paper bags REF	carton 25 kg REF	paper bag 25 kg REF
<b>Hinristone® Saphir</b>	golden brown	654000	654002	-	-
	ivory	654010	654012	-	-
	maize yellow	654020	654022	-	-
	light grey	654030	654032	-	-
<b>Hinriplast® N</b>	golden brown	106901	106906	106905	106904
	apricot	100690	100692	106709	100694
	ivory	100680	100689	106809	100684
	pearl-grey	100670	100679	106909	100674
<b>Hinristone® 20</b>	golden brown	100658	100652	165139	100654
	yellow	106508	106502	165119	106504
	green	106518	106512	165129	106514
	white	100758	100752	165169	100754

# Super hard stone type 4 (low expansion)

## Hinristone® 22

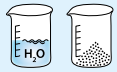
A reliable and thixotropic super hard stone with a high hardness. Hinristone® 22 offers smooth surfaces and good edge stability combined with a very low expansion.

Use recommendation: implant models, saw-cut models, master models

**golden brown, yellow, green, white**



Natural stone



22 ml / 100 g



6-7 min.



12-14 min.



2 h



55 MPa

1 h



80 MPa

24 h

## Hinristone® 24

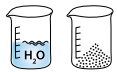
A medium hard and thixotropic super hard stone. Hinristone® 24 offers smooth surfaces and good edge stability combined with a low expansion.

Recommendation: saw-cut models, control models, orthodontic cases, models for partial frameworks

**golden brown, white**



Natural stone



24 ml / 100 g



6-7 min.



12-14 min.



2 h



50 MPa

1 h



75 MPa

24 h

## Hinristone® Speed

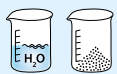
A quick-setting super hard stone for carrying out urgent repairs. This stone is also suitable for opposing and study models. Due to its quick setting time the model can be removed after 10 minutes and further work completed on it.

Use recommendation: implant models, saw-cut models, master models, repairs

**golden brown**



Natural stone



20 ml / 100 g



3-4 min.



5-6 min.



2 h



60 MPa

1 h



90 MPa

24 h

## Japan-Stone

A synthetic super hard stone with low setting expansion, edge stability and toughness. For fabricating dental arches, check models and single dies for gold and porcelain work.

Use recommendation: implant models, saw-cut models, master models

**white, golden brown**



Synthetic stone



20 ml / 100 g



5-6 min.



10-12 min.



2 h



60 MPa

1 h



90 MPa

24 h

## SH 074

High compression strength and low expansion due to its composition. Models have edge stability and an excellent scratch-resistant, smooth surface. Extremely suitable for sectioned models, check models and master models.

Use recommendation: master models, control models, working and checkbite casts, orthodontics, very white show models

**super white, pink**



Synthetic stone

## Die Stone

For die models, crown and bridge work. Extremely accurate due to its low expansion. Very smooth, hard surface.

Use recommendation: saw-cut models, master models

**peach**



Natural stone

## CAM-Stone N Special stone for all scanning systems

Powdering stone models is unnecessary with CAM-Stone N. This special model stone was developed for optoelectronic scanning. It prevents interference from reflections in defined frequency ranges. The quick setting time allows treatment to be completed in one chairside appointment. CAMStone N reproduces detail exactly, has edge stability and is sharply defined.

Use recommendation: implant models, saw-cut models, master models, scannable

**ivory**



Natural stone

## Base Stone FL

A flowable stone for basing, which can be poured from the tub directly into the baseformer without vibrating. This extremely flowable special stone is suitable for basing all die and dental arch models and guarantees a bubble free base.

Use recommendation: Bases for dental arches, for sectioned models, for all pin systems when using gypsum

**blue, green, white, deep blue, terracotta**



Natural stone

## Base Stone natural

For basing dental arches, for overcasts and milling bases, for reline overbites and orthodontic models, for stress-free models and positioning pins exactly.

Use recommendation: Bases for dental arches, for sectioned models, for all pin systems when using gypsum

**white, pink**



Natural stone

# Super hard stone type 4 (low expansion)

Super hard stone, type 4	Colour	paper bag 5 kg REF	carton á 4 x 5 kg paper bag REF	carton 25 kg REF	paper bag 25 kg REF
<b>Hinristone® 22</b>	golden brown	106528	106529	165239	106524
	yellow	106538	106532	165219	106534
	green	106548	106542	165229	106544
	white	107508	107502	165269	107504
<b>Hinristone® 24</b>	golden brown	106558	106559	165339	106554
	white	107518	107512	165369	107514
<b>Hinristone® Speed</b>	golden brown	107650	107652	107659	107654
<b>Japan-Stone</b>	golden brown	100180	100182	100189	100186
	super white	100170	100172	100179	100176
<b>SH 074</b>	pink	100880	100882	100889	100886
	super white	100190	100191	100199	100196
<b>Die Stone</b>	peach	104700	-	104709 (22,7 kg)	-
<b>CAM-Stone N</b>	ivory	100725	107219	107218	107214
<b>Base Stone FL</b>	blue	109820	109822	109827	109824
	green	109840	109842	109847	109844
	white	109830	109832	109837	109834
	deep blue	109850	109855	109853	109854
	terracotta	109870	109872	109877	109874
<b>Base Stone natural</b>	white	108730	108732	108737	108734
	pink	108780	108782	108787	108784

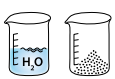


## HinriDie

HinriDie is made from raw materials from America and is preferred for high-quality prosthetic work because of its high compression strength and edge stability. Increased expansion compensates for the shrinkage of other materials.

Use recommendation: saw-cut models, master models, control models

**green, golden brown**



21 ml / 100 g



6 min.



10-13 min.



2 h



45 MPa

1 h



90 MPa

24 h



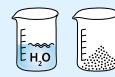
**Natural stone**

## Hinristone® E

A fine flowing thixotropic super hard stone, which offers extraordinary hardness made of high purity natural stone. Its high expansion compensates for the contraction of other material. Hinristone E has a high scratch and fracture resistance and is especially suitable for first class prothesis.

Recommendation: saw-cut models, master models, control models

**golden brown**



20 ml / 100 g



7 min.



12-14 min.



2 h



60 MPa

1 h



90 MPa

24 h



**Natural stone**

Super hard stone, type 5	Colour	paper bag 5 kg REF	carton á 4 x 5 kg paper bags REF	carton 22,7 kg REF	paper bag 25 kg REF
HinriDie	green	-	-	105604	-
	golden brown	-	-	105614	-
Hinristone® E	golden brown	100760	100762	-	100764



## Model system Profident 2010

This innovative, reliable model system ensures maximum precision and saves a great deal of time and material. There is no need to invest in additional, expensive equipment. The Profident 2010 can also be used for fabricating high-quality sectioned models quickly.

After preparing the impression, the complete model including the base is fabricated in one step. The Profident 2010 has a preformed, dimensionally stable split cast. The components and pin base plates, which are supplied in two sizes, are reusable and cover all applications.



Model production in less than 10 minutes



Profident 2010

complete starter set

REF 890000

1 x working instruction; 3 x pin base plate, size 1; 2 x pin base plate, size 2; 3 x study model plate, size 1; 2 x study model plate, size 2; 2 x model sleeve, size 1; 1 x model sleeve, size 2; 1 x removal device; 1 x 100 ml Profi sep 2010; 1 x positioner plate, size 1; 1 x positioner plate, size 2.

### Also single available:

Pin base plate incl. split cast plate and magnet	size 1	REF 890001
Model sleeve	size 1	REF 890002
Study model plate	size 1, 25 plates	REF 890003
Abhebevorrichtung	size 1	REF 890004
Pin base plate incl. split cast plate and magnet	size 2	REF 890011
Model sleeve	size 2	REF 890012
Study model plate	size 2, 25 plates	REF 890013
Removal device	size 2	REF 890014
Profi sep 2010 (separating agent)	100 ml	REF 890021
Profi sep 2010 (separating agent)	500 ml	REF 890022
Profi sep Clean (cleaning agent)	400 ml	REF 890023
Cleaning pen, gray		REF 890099
Pin base plate ECO incl. magnet	size 1, 10 pieces	REF 890005
Split cast plate incl. Magnet	size 1, 10 pieces	REF 890008

NEW



## Model system Profident evolution

In this starter set you will find everything you need to create true saw-cut models in combination with the Magic Model 3D CAD model builder. (page 71)

The pin base plates are designed for single use.

Profident evolution

starter set complete

REF 890316

### Contents:

10 pcs. pin base plate, small	20 pcs insert w/o metal core
4 pcs. Splitcast plate, small	1 pc. reamer
10 pcs. pin base plate, large	1 set (5 x 15) pcs. articulation supports MM3D
4 pcs. Splitcast plate, large	1 pc. Reamer 2 mm for articulation supports
10 pcs. insert with metal core	1 pc Plastic hammer for model systems

Profident Evolution pin basie plate small, 10 pcs.

REF 890302

Profident Evolution pin basie plate small, 50 pcs.

REF 890303

Profident Evolution pin basie plate large, 10 pcs.

REF 890304

Profident Evolution insert without metal core, white, 10 pcs.

REF 890305

Profident Evolution insert without metal core, white, 50 pcs.

REF 890306

Profident Evolution insert with metal core, white, 10 pcs.

REF 890318



## HinriPoly 1:1

A two component (1:1) model material based on polyurethane with a low shrinkage for the production of demonstration and presentation models and for internal control models as well.

- very low-viscous (thin flowing)
- easy to process
- long working time
- low shrinkage < 0,1 %
- stable in dimension
- high precision and edge stability
- easy to mill and grind
- optionally dyeable in different colours



HinriPoly 1:1, Komp. A + B

2 x 1.000 ml

REF 721600

## Base former

By means of the HINRICHS base former, the model creation obtains a fast, economical and clean working basis. After 5 seconds only, the perfect base former is ready for each impression. The simple handling and the high economic efficiency (low consumption of material) turns the base former into an important practice attendant.



Base former

set (upper & lower jaw)

REF 890100

Base former

set (upper jaw)

REF 890101

Base former

set (lower jaw)

REF 890102

## Gypsum Gloss

### Impregnation for gypsum models

An environmentally acceptable impregnation for all gypsum models. The gypsum models get thru the gloss bath a moisture-, fat- and dust repellent and a shiny surface as well.



Gypsum Gloss

4.500 ml canister

REF 109120

## Setting accelerator

Proven accelerator for all types of dental gypsum and gypsum bound investment to reduce the setting time. Depending on the amount which shall be mixed add 1-10 g powder to the mixing water and then mix it thoroughly with the gypsum.



Setting accelerator

1 kg can

REF 100401

Setting accelerator

5 kg bag

REF 100402



## GipEx

### Gypsum solvent agent

For removing gypsum and investment residue from acrylic, dentures, impression trays, instruments etc.. Does not contain acid. Can also be used in ultrasonic cleaners. Solution is ready to use. Do not dilute.

GipEx	1.000 ml bottle	REF 100910
GipEx	5.000 ml canister	REF 100911



## GipEx Tabs

High reactive binder for dental gypsum, phosphate bound investments in the gypsum separator. Prevents a blockage of the waste pipes, reduces unpleasant smells and facilitates the cleaning of the separator.

GipEx Tabs	2 pieces	REF 100915
GipEx Tabs	10 pieces	REF 100916
GipEx Tabs	25 pieces	REF 100917



## Hinrisep G

### Gypsum Separator

Provides reliable separation between gypsum layers when sprayed dry surface of gypsum. Also usable for Base Stone FL (flowable). Hinrisep G dries quickly, seals the surface effectively and does not create a greasy film.

Hinrisep G	250 ml pump spray bottle	REF 100920
Hinrisep G	1.000 ml refill bottle	REF 100921



## Hinrisep K

### Acrylic Separator

For hot and cold-curing resins. Alginate-based seal for gypsum models when used with acrylics. The thin smooth film is scratch-resistant and reliably separates gypsum from acrylic.

Hinrisep K	1.000 ml bottle	REF 100922
Hinrisep K	5.000 ml canister	REF 100922

## Neutralgin

### Neutraliser for alginate impressions

For sealing alginate impressions. Prevents alginate acid from discharging, resulting in smooth gypsum models. The separating liquid can be used for all types of alginates.



Neutralgin	250 ml pump spray bottle	REF 100940
Neutralgin	1.000 ml refill bottle	REF 100941
Neutralgin	5.000 ml canister	REF 100942

## Hinrisol

### Alcohol-Based Surface Wetting Agent

#### Not suitable for polyether!

For reducing surface tension, neutralising and cleaning silicone, wax and resin surfaces without leaving a film. Hinrisol is compatible with all silicone-based impression and duplicating materials.



Hinrisol	250 ml pump spray bottle	REF 109400
Hinrisol	1.000 ml refill bottle	REF 109401

## Hinrisid

### Surfactant Debubblizer

#### Suitable for polyether!

HINRICHS surfactant is a universal wetting agent for fabricating gypsum models without bubbles in silicone impressions.



Hinrisid	250 ml pump spray bottle	REF 109410
Hinrisid	1.000 ml refill bottle	REF 109411

## Spray bottle

For propellant-free spraying of liquids (e.g. Neutralgin, Hinrisol, Hinrisid).



pump spray bottle	250 ml	REF 504016
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## Mixing Spatula

For gypsum, resins and cements. Wooden handle. 21.5 cm

## Measuring Cylinder

Made from PMP. Clear. Graded in 1 ml

## Gypsum Knife

According to Gritmann. Wooden handle and flask opener. 17 cm

## Aluminum gypsum scoop

For gypsum and investments, size: 210 mm  
for approx. 160 g powder

Mixing Spatula	REF 516000
Measuring Cylinder	REF 516001
Gypsum Knife	REF 516002
Aluminum gypsum scoop	REF 891006



## Digital Solar Scale

Operation with solar energy, excess energy is conserved and used under poorly lighting conditions, scales to max. 2.000 g.

**0 - 100 g d = 0,5 g / 100 - 2.000 g d = 1 g**

Digital Solar Scale	REF 516007
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## The flaskless duplicating technique

### Economical and accurately fitting

In dental technology, duplicating models for chrome-cobalt have always involved using flasks in a variety of shapes and sizes. When using the ERNST HINRICHS system, flasks are no longer required.

This new method of duplicating using silicone was the basis for further innovative developments - especially in materials and technical methods - and has led to the current well-known flaskless duplicating technique.

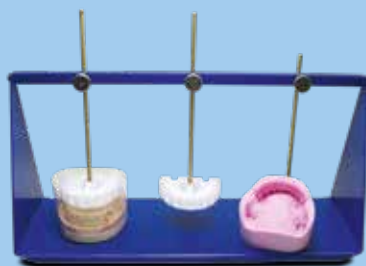
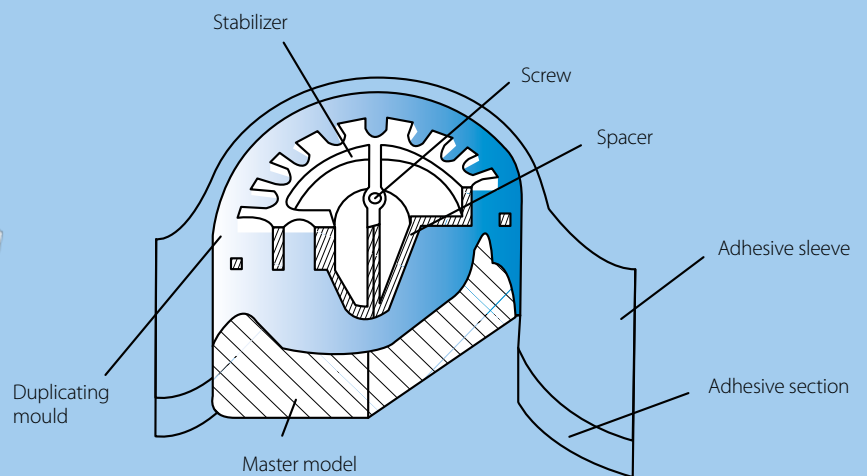
For further information about the flaskless duplicating technique refer to our technical brochure (REF 902033), which may be obtained free of charge from our sales representative or direct from the ERNST HINRICHS technical department.



Model with adhesive duplicating tape ready for duplicating



Cross-section of a flaskless duplicating mould



Fixation device for flaskless duplication

## Dental Duplicating materials

DIN EN ISO 14356

The international norm DIN EN ISO 14356 defines requirements and a method of testing, which are mainly allowed for the manufacture of flexible forms. These forms are mainly used for the production of positive copies made out of heat-resistant investments or gypsum models.

There are two different types of duplicating materials:

**Type 1:** reversible duplicating materials (e.g. duplicating gel)

**Type 2:** irreversible duplicating materials (e.g. duplicating silicone)

The ISO norm requires especially a high accurate reproduction, a heat-resistant, an elastic reforming, digestibility with dental gypsum and investments, a high tear resistance. Type 1 products require additionally special liquid and filling temperatures and a resistance against fungus growing.

Conventional duplicating gel has been largely replaced in Germany due to the development of suitable silicones. ERNST HINRICHS offers addition-curing duplicating silicones with high Shore A hardness and tear growth resistance for the adhesive tape and flask technique. All types of silicones are suitable for automatic dispensers.



### Hinrisil® KL

**Addition-curing duplicating silicone, type 2, pink**

An addition-curing duplicating silicone with a high Shore A hardness usable for the adhesive tape and flask technique. Suitable for automatic dispensers. Shore A hardness: > 24

Hinrisil® KL	2 x 1 kg bottle	REF 100790
Hinrisil® KL	2 x 6 kg canister	REF 100793
Hinrisil® KL	2 x 25 kg canister	REF 100794



### Hinrisil®

**Addition-curing duplicating silicone, type 2, green**

An extremely flowable addition-curing duplicating silicone with a lower Shore A hardness usable for flask duplication. Suitable for automatic dispensers. Shore A hardness: 16-18

Hinrisil®	2 x 1 kg bottle	REF 107940
Hinrisil®	2 x 6 kg canister	REF 107943
Hinrisil®	2 x 25 kg canister	REF 107944



## Hinrisil® hydro

### Addition-curing duplicating silicone, type 2, emerald

An addition-curing duplicating silicone with hydrophilic properties. Because of the hydrophilic surface wetting agents are no longer required. Smooth model surface without surfactants. Hinrisil® hydro is suitable for the material-saving flaskless duplicating technique.

Suitable for automatic dispensers. **Shore A hardness: 22-24**



Hinrisil® hydro	2 x 1 kg bottle	REF 107960
Hinrisil® hydro	2 x 6 kg canister	REF 107963
Hinrisil® hydro	2 x 25 kg canister	REF 107964

## Hinrisil® Speed

### Addition-curing duplicating silicone, type 2, yellow

A rapid- and addition-curing duplicating silicone, developed especially for express jobs using adhesive duplicating tapes or flasks. Remove Hinrisil® Speed from the duplicating mould after just 10 minutes. **Shore A hardness: 24**



Hinrisil® Speed	2 x 1 kg bottle	REF 107970
Hinrisil® Speed	2 x 6 kg canister	REF 107973
Hinrisil® Speed	2 x 25 kg canister	REF 107976

#### Technical data:

accord. DIN EN ISO 14356

	Hinrisil® KL	Hinrisil®	Hinrisil® hydro	Hinrisil® Speed
Mixing ratio:	1:1	1:1	1:1	1:1
Mixing under vakuüm (sec.):	40	40	40	40
Working time (min.):	> 5	> 5	> 5	3 - 4
Curing time (min.):	30 - 45	30 - 45	30 - 45	10
Tensile strength (MPa):	ca. 2,2	ca. 1,8	ca. 2,5	ca. 2,2
Elongation at break (%):	310	220	380	310
Tear strength (N/mm):	6,5	3,0	6,8	6,5
Shore A hardness:	>24	16 - 18	22 - 24	24
Colour:	pink	green	smaragd	yellow

## Hinrigel

### Duplicating gel, type 1

Hinrigel is a high-quality and reversibly duplicating mass. The fine-flowing duplicating gel is suitable for investments and dental gypsum. Hinrigel has a high elasticity and volume stability.

**green**



Hinrigel	6 kg bucket	REF 107953
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## Duplicating starter set

Save silicone with the flaskless duplicating system

The starter set contains all necessary products for the flaskless duplicating system to allow a economical duplicating and investing for the production of partial frameworks.

Content: 1 x 2 x 1 kg Hinrisil® Speed, 1 x 40 m adhesive duplicating tape, 3 x Stabilizer Size 2, 1 Fixation device, 1 x 250 ml Hinrisol, 1 x 25 m disposable ring tape, 1 poster duplicating technique, 1 poster investing technique, 1 produkt catalog (also single available)



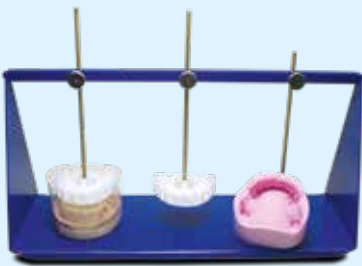
Duplicating technique

starter set

REF 891999

## Fixation device

Device for positioning the stabilizer when using the flaskless duplicating procedure.



Fixation device

REF 891001

## Duplicating cross

Device for flaskless duplication without the fixation device. A practical accessory when the duplicating material is to be vulcanised cured under pressure.



Duplicating cross

REF 891002

## Stabilizer, white

For stabilizing the silicone mould when using the flaskless duplicating procedure. Supplied in four sizes.



Stabilizer Size 1 (57 x 44 mm)

REF 891003

Stabilizer Size 2 (62 x 48 mm)

REF 891004

Stabilizer Size 3 (66 x 55 mm)

REF 891005

Stabilizer Size 4 (72 x 60 mm)

REF 891006

## Adhesive duplicating tape

Duplicating ring tape for the flaskless duplicating technique. Content: 40 m. Height: 50 mm, Adhesive area: 8 mm



Adhesive duplicating tape	40 m	REF 891007
Adhesive duplicating tape	25 m with space-remaining adhesive surface	REF 891008

## Dispensing pump

- plastic dispensing pump inclusive lid, suitable for the 6 kg canister of the 1:1 duplicating silicones from ERNST HINRICHS
- allows an exact weighing of duplicating silicones
- no dipping
- the lids (A/B) have different colours to differ the silicone components



Pump with lid (white)	for 6 kg canister, Comp. A	REF 891030
Pump with lid (red)	for 6 kg canister, Comp. B	REF 891031
Pump with lid (black)	for 6 kg canister, Comp. A+B	REF 891034

## Economical duplicating flasks, blue

Plastic duplicating flask with 3 sections for cost saving, problem-free duplicating with Hinrisil® duplicating silicones. Consists of a flask base, flask ring and stabilizer. Supplied in two sizes.



Flask complete	Size 1 (68 x 81 mm), set	REF 891020
Flask complete	Size 2 (73 x 91 mm), set	REF 891021
Flask base single	Size 1 (68 x 81 mm)	REF 891022
Flask base single	Size 2 (73 x 91 mm)	REF 891025
Flask ring single	Size 1 (68 x 81 mm)	REF 891023
Flask ring single	Size 2 (83 x 91 mm)	REF 891026
Stabilizer with retention retainers	Size 1	REF 891024
Stabilizer with retention retainers	Size 2	REF 891027

## Dispenser unit DA 2020 1 : 1

Mixing and dosing unit for 1:1 duplicating silicones for the modern laboratory

The unit conveys, doses and mixes the duplicating silicones fully automatically and provides exactly the desired material quantity at the push of a button. Fast lock sets are available for 2x1 kg and 2x6 kg.

The advantage: The fluid quantity can be regulated individually.

DA 2000 includes: 10 mixing tips, fast lock set for 2 x 1 kg and 2 x 6 kg.



Dispenser unit DA 2020		REF 891902
Disposable mixing tips	pack of 100, pink	REF 891910
Fast-lock with cover for 6 kg canister (A+B)		REF 891934

# Gypsum-bonded investments

## L 36<sup>®</sup> DIN EN 15912 soldering compound, type 3, brown

A top quality material developed from many years' experience. No expansion or shrinkage of invested patterns. Suitable for all metals. Exceptionally high heat resistance. Can be heated immediately with a large flame.



L 36	5 kg bag	REF 100270
L 36	5 kg bucket	REF 100271
L 36	10 kg bucket	REF 100273
L 36	25 kg carton	REF 100279
L 36	25 kg bag	REF 100274

## Hinrivest<sup>®</sup> G type 1, class 2, white

A gypsum-bonded and graphite-free precision investment for precious metals and low-melting alloys. Expansion can be regulated by the ratio of water used. Finegrained. High degree of accuracy and surface quality. Can be put into a preheated furnace.



Hinrivest <sup>®</sup> G	5 kg (aluminium bag)	REF 102511
Hinrivest <sup>®</sup> G	20 kg (4 x 5 kg)	REF 102514

### Casting Work

We also offer support for casting work. Our technicians, experienced in CoCr, one-piece casting and crown and bridge work, are available for seminars or practical courses on request. Of course we can always give you advice over the telephone.

Contact us and we will be happy to help you.

## Hinrivest® CoCr type 2, class 1

A conventional preheating phosphate-bonded and graphite-free investment for CoCr partial frameworks. This proven phosphate-bonded, graphite-free investment assures a precise fit and smooth surface.

Hinrivest® CoCr	5 kg carton (28 x 180 g PB)	REF 102401
Hinrivest® CoCr	20 kg carton (112 x 180 g PB)	REF 102402
Hinrivest® CoCr	20 kg carton (50 x 400 g PB)	REF 102403
Hinrivest® CoCr	20 kg carton (4 x 5.000 g PB)	REF 102404



## Hinrivest® SG type 2, class 2

A phosphate-bonded, graphite-free investment for CoCr partial frameworks specially developed for the speed preheating technique. Suitable for casting all types of dental alloys.

Hinrivest® SG	5 kg carton (28 x 180 g PB)	REF 102411
Hinrivest® SG	20 kg carton (112 x 180 g PB)	REF 102412
Hinrivest® SG	20 kg carton (50 x 400 g PB)	REF 102413



## Hinrivest® KB type 1, class 2

A speed casting universal investment for casting all types of precious and non-precious alloys in crown and bridge and combined techniques. Also ideal for direct firing of pressable ceramics. Ultra-fine grains, excellent accuracy and surface quality.

Hinrivest® KB	5 kg carton (32 x 160 g PB)	REF 109601
Hinrivest® KB	20 kg carton (125 x 160 g PB)	REF 109602



## Hinrivest® Press type 1, class 2

A phosphate bonded, graphite free precision investment especially developed for all press-able ceramic systems in the speed casting technique. Produces only very thin reaction layers, therefore it's recommended for pressing lithium disilicate ceramics.

- excellent expansion control
- super fine powder, very creamy
- consistency and working properties
- the well-balanced grading curve guarantees very smooth surfaces of the ceramics
- fast preheating saves time

Hinrivest® Press	5 kg carton (50 x 100 g PB)	REF 241001
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## Hinrivest® RP type 1, class 2

A super fine phosphate bonded, graphite free precision investment for the production of partial denture frameworks. Hinrivest® RP is developed especially for the casting of printed (rapid prototyping) and milled wax & resin parts.

- super fine corn size, creamy consistency
- perfect fitting, very smooth casting surface
- easy to divest

Hinrivest® RP	20 kg carton (50 x 400 g PB)	REF 102433
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## Hinrivest® Liquid

Expansion liquid for regulating setting expansion of phosphate-bonded Hinrivest® investments. Can be diluted with distilled water.

Hinrivest® Liquid	1 Liter bottle	REF 107820
Hinrivest® Liquid	3 Liter canister	REF 107821
Hinrivest® Liquid	25 Liter canister	REF 107824

## Hinrivest® Liquid High Ex

Special liquid contains a higher proportion of silica solution and other particles for higher expansion values. For fabricating CrCo telescopic work and also for other phosphate-bonded investments.

Hinrivest® Liquid High Ex	1 Liter bottle	REF 107830
Hinrivest® Liquid High Ex	3 Liter canister	REF 107831



## Disposable ring tape

Adhesive disposable ring tape for use when investing CrCo.

The surface area of the investment mould's outer surface is increased considerably due to the corrugated effect of the ring material. This increases the amount of heat absorbed during burnout. The diameter of the mould is no greater than that of the duplicate model. This saves investment and space within the furnace.

Disposable ring tape	25 m	REF 892001
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## Silicone sleeves, model form

Vertical groove structure on the inside of the ring increases the surface area. Setting expansion is not affected, ensuring an optimum fit of the casting. Use of a silicone sleeve ensures a more uniform heat uptake and controlled cooling of the mould. The whole span of the pattern can be placed at the same distance from the mould wall, optimising the fit of the casting.

Silicone sleeves	Size 0 (ø 70 mm x 55 mm)	REF 892017
Silicone sleeves	Size 1 (ø 75 mm x 60 mm)	REF 892003
Silicone sleeves	Size 2 (ø 80 mm x 65 mm)	REF 892004
Silicone sleeves	Size 3 (ø 90 mm x 75 mm)	REF 892005

## Model-shaped base plate, model form

For CrCo and ringless direct-wax investing with the model-shaped silicone sleeve.

with sprue-former	Size 0 (ø 70 mm x 55 mm)	REF 892018
with sprue-former	Size 1 (ø 75 mm x 60 mm)	REF 892019
with sprue-former	Size 2 (ø 80 mm x 65 mm)	REF 892020
with sprue-former	Size 3 (ø 90 mm x 75 mm)	REF 892021
without sprue-former	Size 0 (ø 70 mm x 55 mm)	REF 892022
without sprue-former	Size 1 (ø 75 mm x 60 mm)	REF 892006
without sprue-former	Size 2 (ø 80 mm x 65 mm)	REF 892007
without sprue-former	Size 3 (ø 90 mm x 75 mm)	REF 892023



## Wax adhesive

Residue-free adhesive for use with preformed wax patterns on unhardened ERNST HINRICH'S CrCo investment duplicate models. The wax adhesive should be applied thinly to ensure retention of the patterns on the duplicate model.



Wax adhesive	30 ml	REF 892030
Wax adhesive	100 ml	REF 892031

## Plunger Aluoxid

Manufactured from high purity aluminium oxide (> 99.8 % Al<sub>2</sub>O<sub>3</sub>), reusable many times, no micro cracks in the sprues, suitable for all pressable ceramic systems.

Available in 2 diameter: Ø 12 mm and Ø 13 mm.



Plunger Aluoxid	Ø 12 mm, size 37 mm, 2 pieces	REF 892060
Plunger Aluoxid	Ø 13 mm, size 35 mm, 2 pieces	REF 892059

## Disposable Plunger

- No preheating of the plunger!
- Easy to handle
- no more time-consuming divesting of reusable plungers
- no micro cracks in the sprues
- suitable for all pressable ceramic systems

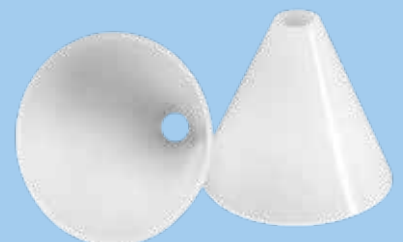
Available in 2 diameter: Ø 12 mm and Ø 13 mm. Content: 50 pieces



Disposable Plunger	Ø 12 mm, 50 pieces	REF 892061
Disposable Plunger	Ø 13 mm, 50 pieces	REF 892063

## Sprue formers

Made from flexible injection-molded plastic for multiple use as a sprue-former in CrCo rings.



Sprue formers	100 pieces	REF 892036
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## Base plates with silicone sleeves, round

For economic, direct investing with the model base plate for crown and bridge work. Vertical groove structure on the inside of the ring increases the surface area. Setting expansion is not affected, ensuring an optimum fit of the casting. Use of a silicone sleeve ensures a more uniform heat uptake and controlled cooling of the mould. Sprue formers are supplied with these silicone sleeves in sizes 3, 6 and 9.

Round silicone sleeves	Size 3, Ø innen: 45 mm	REF 892040
Round silicone sleeves	Size 6, Ø innen: 62 mm	REF 892041
Round silicone sleeves	Size 9, Ø innen: 75 mm	REF 892042
Round casting mould base with sprue former, white	Size 3	REF 892050
Round casting mould base with sprue former, white	Size 6	REF 892051
Round casting mould base with sprue former, white	Size 9	REF 892052



## Silicone Sleeves Ceram

For a well known press-ceramic systems (e.g. Degussa, Ivoclar). The corrugated effect of the muffle surface area will regulate the solidification of the ceramic. Easy handling.

Silicone sleeve ceram 100	100 g	REF 892010
Silicone sleeve ceram 200	200 g	REF 892011

## Muffle system Ceram

Muffle system for silicones sleeves Ceram (for lithium disilicates press systems), available in 2 sizes.

Each set contains 3 mould bases and 3 mould gauges.



Muffle system Ceram 100	Ø 13 mm, pack of 3 sets	REF 892012
Muffle system Ceram 200	Ø 13 mm, pack of 3 sets	REF 892013

## Hinri-Alloy CoCr

Composition (in % by mass): Co: 62.0 Cr: 31.0 Mo: 5.0  
Other <1%: Si, C, Mn, Fe

Hinri-Alloy CoCr is a universal alloy for partial denture frameworks with clasps. This alloy has an optimized flow-rating. The casted partials are easy to prepare and polish. Hinri-Alloy CoCr is very corrosion-resistant and free of beryllium, indium and gallium.

**Area of application:** Non precious alloy based on cobalt for removable dentures accord. DIN EN ISO 22674, type 5.



Hinri-Alloy CoCr

1.000 g

REF 893040

## Hinri-Alloy CB

Composition (in % by mass): Co: 64.0 Cr: 21.0 Mo: 6.0 W: 6.0  
Other <1%: Si, Fe, Mn

Because of the low vickers hardness Hinri-Alloy CB allows an optimal preparation and polishing. The alloy is very flexible during handling, ideal for crowns and bridges and milling work. It can be bonded with all standard high sintering porcelains. Hinri-Alloy CB is high corrosion-resistant and free of beryllium, indium and gallium.

**Area of application:** Non precious casting alloy based on cobalt for metal-ceramic accord. DIN EN ISO 22674, type 5.



Hinri-Alloy CB

250 g

REF 893023

Hinri-Alloy CB

500 g

REF 893022

## Hinri-Alloy N

Composition (in % by mass): Ni: 63.0 Cr: 25.0 Mo: 9.0 Si: 2.0 Nb: 1.0

Hinri-Alloy N is a high corrosion resistant bonding alloy based on nickel. Hinri-Alloy N is applicable for the laser technique and convinces through the low oxidation during the porcelain firings, also after several firing cycles. Hinri-Alloy N can be used with all standard high-sintering bonding porcelains and is free of beryllium, indium and gallium.

**Area of application:** Non precious casting alloy based on nickel for metal ceramic accord. DIN EN ISO 22674, type 3.



Hinri-Alloy N

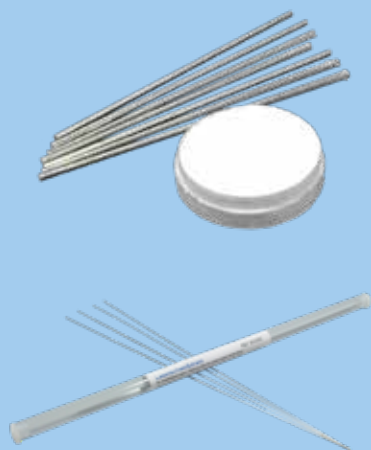
1.000 g

REF 893030

Date of information: 02/2019

### Technical data (guidelines):

	Hinri-Alloy CoCr	Hinri-Alloy CB	Hinri-Alloy N
Proof stress Rp 0.2 (MPa):	609	570	362
Elongation at rupture A5 (%):	6.2	10.0	26.0
Modulus of elasticity (GPa):	200	194	191
Coefficient of expansion WAK 25-500 °C:	-	$14.1 \times 10^{-6} \text{ K}^{-1}$	$13.7 \times 10^{-6} \text{ K}^{-1}$
Coefficient of expansion WAK 25-600 °C:	-	$14.6 \times 10^{-6} \text{ K}^{-1}$	$14.0 \times 10^{-6} \text{ K}^{-1}$
Tensile strength Rm (MPa):	761	734	602
Vickers hardness VH 10:	390	286	180
Density (g/cm <sup>3</sup> ):	8.3	8.8	8.3
Melting range (°C):	1.340-1.400	1.309-1.417	1.298-1.344
Casting temperature (°C):	1.450	1.460	1.380
Max. oxide fixing temperature (°C):	-	935	950



## Special Solder

CrCo-based soldering rods for all CrCoMo alloys. The high melting range guarantees that the solder has a high diffusion depth. This produces very strong soldering joints. After soldering, porcelain is easily applied to the nickel-free, special solder.

Melting range: 1.071 - 1.260 °C

CoCrMo Special Solder, 2 mm	20 g (approx. 80 mm x 2 mm including flux), nickel-free	REF 893060
CoCrMo Special Solder, 1 mm	10 g (approx. 80 mm x 1 mm including flux), nickel-free	REF 893061

Melting range: 992 - 1.185 °C

CoNiCr Special Solder 2 mm	10 g (approx. 80 mm x 2 mm including flux), contains nickel	REF 893066
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## Laser welding rods

CrCo-based laser welding rods for biocompatible connections of CrCo castings with laser welding.

- Suitable for CrCo denture framework and bonding alloys
- Easy porcelain application
- Carbon-free

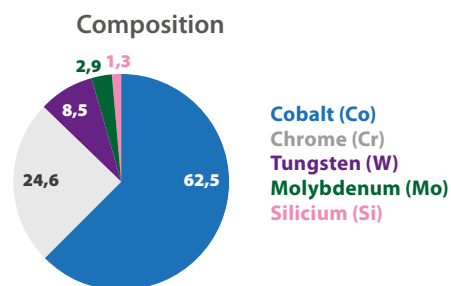


## Adorbond CC Pulver

ADORBOND® CC Powder is a dental partial denture alloy based on cobalt. ADORBOND® CC Powder is free from nickel, cadmium, beryllium and lead and fulfils the standards of EN ISO 22674 type 5 for appliances in which parts require the combination of high stiffness and strength, e.g. thin removable partial dentures, parts with thin cross-sections and clasps. ADORBOND® CC Powder can be used as a partial denture alloy as well as a metal-ceramic alloy.

### Advantages

- Free from nickel, cadmium and beryllium
- Especially good for applications with thin cross-sections that are exposed to very high forces
- CE-certified
- Depending on the ceramic, no cooling phase is necessary



### Technical data

Particle size (um)	10-30 / 15-45
Density (g/cm³)	8,3
Vickers hardness (HV10)	515 / 285
WAK 25-500 °C (10 <sup>-6</sup> K <sup>-1</sup> )	13,9
WAK 20-600 °C (10 <sup>-6</sup> K <sup>-1</sup> )	14,0
Melting interval (°C)	1.304-1.369
Firing temperature T <sub>Br,max</sub> (°C)	980
Yield strength (R <sub>p0,2</sub> MPa / N/mm²)	1047 / 1068
Modulus of elasticity (GPa) approx	171.000 / 236.000
Tensile elongation at break A5 (%)	2,4 / 2,8

5 kg Dose	ADORBOND CC Pulver 10/30	REF 893014
5 kg Dose	ADORBOND CC Pulver 15/45	REF 893015

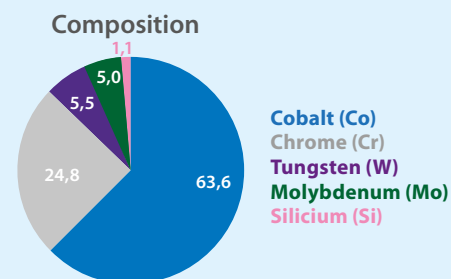


## Adorbond CC Plus Pulver

ADORBOND® CC Plus Powder is a dental partial denture alloy based on cobalt. ADORBOND® CC Plus Powder is free from nickel, cadmium, beryllium and lead and fulfils the standards of EN ISO 22674 type 5 for appliances in which parts require the combination of high stiffness and strength, e.g. thin removable partial dentures, parts with thin cross-sections and clasps. ADORBOND® CC Plus Powder can be used as a partial denture alloy as well as a metal-ceramic alloy.

### Advantages

- Free from nickel, cadmium and beryllium
- Especially good for applications with thin cross-sections that are exposed to very high forces
- CE-certified
- Depending on the ceramic, no cooling phase is necessary



### Technical data

Particle size (um)	10-30 / 15-45
Density (g/cm³)	8,2
Vickers hardness (HV10)	520 / 320
WAK 25-500 °C (10 <sup>-6</sup> K <sup>-1</sup> )	14,3
WAK 20-600 °C (10 <sup>-6</sup> K <sup>-1</sup> )	14,5
Melting interval (°C)	1.360-1.420
Firing temperature T <sub>Br,max</sub> (°C)	980
Yield strength (R <sub>p0,2</sub> MPa / N/mm²)	1020 / 1120
Modulus of elasticity (GPa) approx	275.000 / 200.000
Tensile elongation at break A5 (%)	5,0 / 4,0

5 kg Dose	ADORBOND CC PLUS Pulver 10/30	REF 893012
5 kg Dose	ADORBOND CC PLUS Pulver 15/45	REF 893013

## HinriPress®

HinriPress® is the cold-curing allrounder among all denture base acrylics and especially designed for dental technicians who like to cover all indications with only one product.

Indications:

- Completion of model cast dentures
- Partial or total relinings (indirect method)
- Additions and repairs

HinriPress® liquid	1.000 ml, colourless	REF 721000
HinriPress® powder	1.000 g, pink	REF 721010
HinriPress® powder	1.000 g, pink opaque	REF 721011
HinriPress® powder	1.000 g, colourless clear	REF 721012



## HinriPress® Vario

HinriPress® Vario is a cold-curing allrounder among all denture base acrylics. The expanded processing time of this material allows the dental technicians a most stress-free handling.

Indications:

- Completion of model cast dentures
- Partial or total relinings (indirect method)
- Additions and repairs

HinriPress® Vario liquid	1.000 ml, colourless	REF 721100
HinriPress® Vario powder	1.000 g, pink	REF 721110
HinriPress® Vario powder	1.000 g, pink opaque	REF 721111
HinriPress® Vario powder	1.000 g, colourless clear	REF 721112



## HinriDon

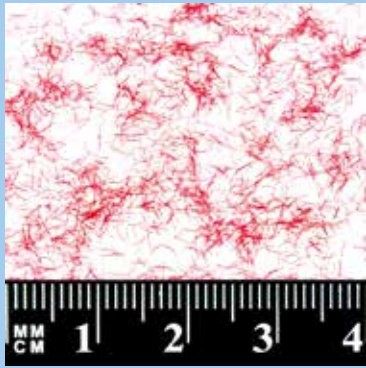
HinriDon is an economic, cadmium-free denture base resin that guarantees high quality results by using any known hot-curing polymerization technique

Indications:

- Total upper and lower dentures by using the pressing-/packing technique

HinriDon liquid	1.000 ml, colourless	REF 721200
HinriDon powder	1.000 g, pink	REF 721210
HinriDon powder	1.000 g, pink opaque	REF 721211
HinriDon powder	1.000 g, colourless clear	REF 721212





## HinriPress® Veins

Viscose fibres to be mixed into denture resins for the individual design of a veined appearance.

HinriPress® Veins

5 g

REF 721500



## HinriPress® flask S

Flask for the silicone embedding according to the HinriPress® resin pouring system. With a transparent flask-cover, steel bottom with integrated boiling out plate and canal stabber.

HinriPress® flask S

1 piece

REF 721502



## HinriPress® flask G

Two piece flask for the gel embedding according to the HinriPress® resin pouring system. With a transparent flask-cover and canal stabber.

HinriPress® flask G

1 piece

REF 721503



## Aluminium Oxide 250 µm, 110 µm, 50 µm white

For sandblasting restorations made from any type of alloy. HINRICHS' high-grade corundum does not cause silicosis and complies with health and safety regulations. The sharp-edged grains and extreme hardness guarantee very efficient sandblasting.

Other corn sizes are on request available.



Aluminium Oxide	5 kg canister	250 µm	REF 100291
Aluminium Oxide	10 kg canister	250 µm	REF 100293
Aluminium Oxide	25 kg bag	250 µm	REF 100294
Aluminium Oxide	25 kg carton	250 µm	REF 102909
Aluminium Oxide	5 kg canister	110 µm	REF 100301
Aluminium Oxide	10 kg canister	110 µm	REF 100303
Aluminium Oxide	25 kg bag	110 µm	REF 100304
Aluminium Oxide	25 kg carton	110 µm	REF 103009
Aluminium Oxide	5 kg canister	50 µm	REF 100311
Aluminium Oxide	10 kg canister	50 µm	REF 100313
Aluminium Oxide	25 kg bag	50 µm	REF 100314
Aluminium Oxide	25 kg carton	50 µm	REF 103107

## Glass Beads 125 µm, 50 µm white

For carefully cleaning and condensing sensitive surfaces. (No damage to precious and non-precious alloys etc.). Silicosis-free material produced in Germany. Supplied in grain sizes 125 µm and 50 µm.



Glass Beads	5 kg canister	125 µm	REF 100331
Glass Beads	10 kg canister	125 µm	REF 100333
Glass Beads	25 kg bag	125 µm	REF 100334
Glass Beads	25 kg carton	125 µm	REF 103309
Glass Beads	5 kg canister	50 µm	REF 100341
Glass Beads	10 kg canister	50 µm	REF 100343
Glass Beads	25 kg bag	50 µm	REF 100344
Glass Beads	25 kg carton	50 µm	REF 103409

## Poliresin®

An odourless polishing agent specially developed for polishing acrylic dentures. Poliresin® is used in the same way as pumice, but smoothes even more effectively and has a 30 % longer life span. The acrylic is gently polished due to the unique crystalline structure of Poliresin®. The time required for the subsequent high-lustre polish is greatly reduced.



Poliresin®	2 kg bag	REF 100320
Poliresin®	4 x 2 kg bag	REF 100321
Poliresin®	10 kg bag	REF 100323
Poliresin®	10 kg carton	REF 100324



## Pumice powder fine, medium, coarse

Guaranteed quartz-free polish. In grain sizes fine, medium and coarse. No risk of silicosis. Excellent working properties. Our pumice powder is an unprocessed and environmentally friendly natural product which can easily be disposed of after use.

	fine	medium	coarse
5 kg bag	REF 100350	REF 100360	REF 100370
4 x 5 kg bag	REF 100352	REF 100362	REF 100372
20 kg carton	REF 103509	REF 103607	REF 103707
25 kg bag	REF 100354	REF 100364	REF 100374



## Pumice-Sep

- ready to use liquid for pumice powder and Poliresin®
- the liquid reaches a high bactericidal and fungicidal (e.G. Candida albicans) effect
- prevents effective unpleasant odours
- Delays efficiently and permanently dehydration of the polishing material
- Does not contain formaldehyde and is biodegradable.

Pumice-Sep	1 Liter bottle	REF 100381
Pumice-Sep	5 Liter canister	REF 100382



## Pumice Paste

- ready to use pumice paste for polishing of acrylic dentures
- the liquid reaches a high bactericidal and fungicidal (e.G. Candida albicans) effect
- prevents effective unpleasant odours
- Delays efficiently and permanently dehydration of the polishing material
- Does not contain formaldehyde and is biodegradable.

Pumice Paste	5 kg bucket	REF 100381
Pumice Paste	10 kg bucket	REF 100382

## Hinriform Gingiva / Gingiva soft

A-silicone for fabricating gingival masks. Hinriform® Gingiva is an A-silicone with a high Shore A hardness for fabricating of gingival masks in the direct application in the impression and the indirect fabrication technique on the model.

- High final Shore A hardness > 70, very strong tear resistance
- short vulcanisation time of 7-8 minutes easy to cut and grind
- cartridges are usable for all standard 50 ml dispenser systems
- applicable for the complete crown and bridge technique and implantology

**Hinriform Gingiva soft: with reduced Shore A hardness of 40.**



Hinriform Gingiva	2 x 50 ml + 12 mixing tips	REF 793040
Hinriform Gingiva soft	2 x 50 ml + 12 mixing tips	REF 793030

## Hinriform Gingiva Sep

A separating agent spray for use with A-silicones. Hinriform Gingiva Sep prevents different A-silicone impression materials bonding together, ensuring optimal separation of the two different impression materials after curing.



Hinriform Gingiva Sep	85 ml	REF 793050
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## Hinriform 90 x-hard

Kneadable two-component A-silicone with a greatly increased final setting Shore. A hardness of > 90 after 24 hours. Mixing ratio of components A and B: 1 : 1. Very low shrinkage < 0.01%. Optimal working and hardening times according to requirements. Exact reproduction of details. Cuts easily and is resistant to inorganic chemicals. Excellent mechanical properties after hardening.



Hinriform 90 x-hard 1 : 1	2 x 1,5 kg	REF 793000
Hinriform 90 x-hard 1 : 1	2 x 5,0 kg	REF 793001

## Hinritray Upper jaw

Light-curing tray material for fabricating functional trays, custom trays, bite-blocks, registration bite plates and for other uses in the laboratory. Each side must be polymerized for 4 minutes. Supplied in packs of 50 preformed templates for upper and lower arches in pink, blue and transparent.



Hinritray	50 blanks, pink	REF 801000
Hinritray	50 blanks, blue	REF 801010
Hinritray	50 blanks, transparent, mint flavoured	REF 801020



## Ultrasonic polishing paste cleaner

A water soluble cleaner based on a special agent for removing rests of polishing paste and materials with high fat contents on crowns, bridges, acrylic dentures & instruments which are used for ultrasonic units and fluid pin cleaning systems. It also removes relining with zinc oxide paste free of residue by diluting with a higher concentration.

High concentrate 1:20

Ultrasonic polishing paste cleaner	1,0 kg bottle	REF 103820
Ultrasonic polishing paste cleaner	5,0 kg canister	REF 103821



## Ultrasonic dental plaque cleaner

A water soluble cleaner based on a special agent for removing dental plaque from dental prosthesis. For the use in the dental laboratory, in the dentistry and the patient as well.

High concentrate 1:20

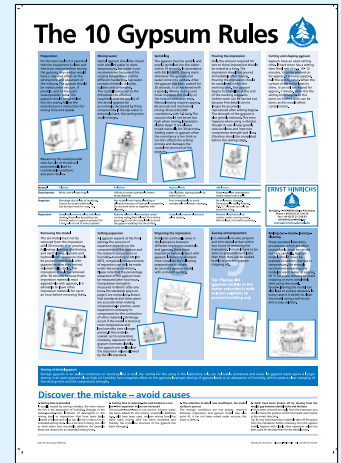
Ultrasonic dental plaque cleaner	1,0 kg bottle	REF 103825
Ultrasonic dental plaque cleaner	5,0 kg canister	REF 103826

## The 10 gypsum rules

Order free of charge "The 10 Gypsum Rules of ERNST HINRICHS" as DIN A 2 poster for to the assistance when working with dental gypsum.

DIN A 2 Poster, gratis

REF 902001

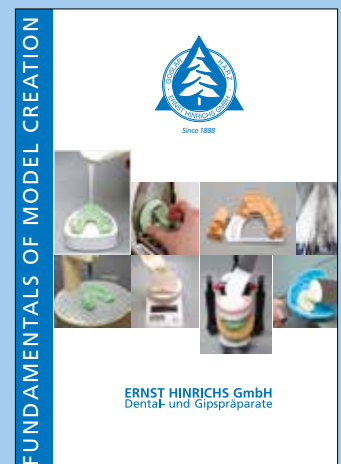


## The correct creation of gypsum models

Handbook

Handbook, 32 pages

REF 902024

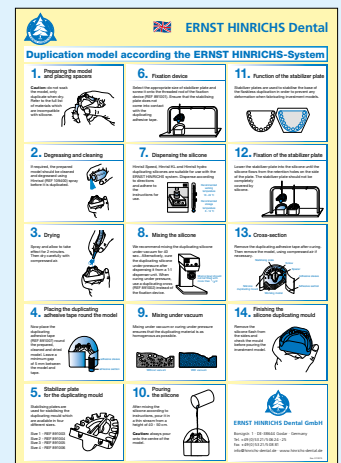


## Poster duplicating technique

Each stage of the HINRICHS flaskless duplicating technique is illustrated and described in detail.

DIN A 4 Poster, gratis

REF 902026

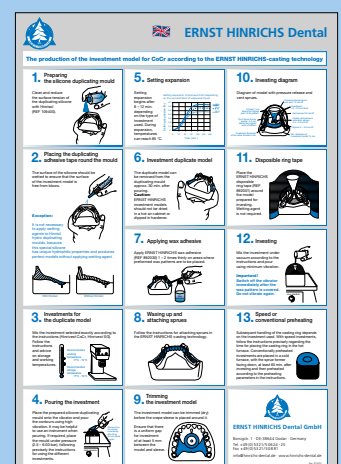


## Poster investing technique

Each stage of the HINRICHS system investment model fabrication technique is illustrated and described in detail.

DIN A 4 Poster, gratis

REF 902027





## Book worm

Height: 6 cm



## Angel

white Height: 5 cm

Book worm	Height: 6 cm	REF 903000
Angel, white	Height: 5 cm	REF 903010



## Bottom with ears

### female

big Height: 8 cm  
small Height: 3 cm

### male

big Height: 8 cm  
small Height: 3 cm

Bottom with ears female, big	Height: 8 cm	REF 903020
Bottom with ears female, small	Height: 3 cm	REF 903021
Bottom with ears male, big	Height: 8 cm	REF 903022
Bottom with ears male, small	Height: 3 cm	REF 903023



## Practice or laboratory sign made of gypsum

Dimensions: 22 x 31 cm (W x H)  
with open space for name tag

Practice or laboratory sign made of plasters	REF 903004
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## Ratfink

Height: 6 cm



## Dipstick

Height: 17 cm

Ratfink	Height: 6 cm	REF 903002
Dipstick	Height: 17 cm	REF 903003





**„Ecki“**

Height: 13,5 cm

Ecki

REF 903030



**„Backi“**

Height: 12 cm

Backi

REF 903031



**„Manni“**

Height: 13,5 cm

Manni

REF 903032



**„Rudi“**

Height: 14 cm

Rudi

REF 903033



**„Mike“**

Height: 14 cm

Mike

REF 903034



**„Angi“**

Height: 13 cm

Angi

REF 903035



**„Clement“**

Height: 11 cm

Clement

REF 903036



**„Mick“**

Height: 11,5 cm

Mick

REF 903037



**„Marylin“**

Height: 12 cm

Marylin

REF 903038



**„Joachim“**

Height: 14 cm

Joachim

REF 903040



**„Tommy“**

Height: 15 cm

Tommy

REF 903041



**„Dickie“**

Height: 13 cm

Dickie

REF 903042



## exocad<sup>®</sup> DentalCAD

### The complete software solution for digital dentistry



- ✓ powerful dental CAD-Software
- ✓ great for beginners, yet powerful in the hands of an expert

The CAD software is known for its speedy operation and ease of use, helping you minimize training costs and maximize productivity. It is reliable and robust even when dealing with complex cases on a daily basis. Once you're familiar with the base functionality of our software, there's more to discover:

- ✓ Copy previous designs, or mirror healthy teeth
- ✓ Load 2D images during the design
- ✓ Take advantage of our advanced mesh editing and matching features
- ✓ Save real 3D PDF files, to send out design previews that can be viewed in 3D using a standard PDF viewer
- ✓ Exchange large 3D data sets with dentalshare

Already the standard version, exocad<sup>®</sup> DentalCAD covers a wide variety of indications:

- ✓ Anatomic crowns
- ✓ Anatomic copings
- ✓ Bridge framework
- ✓ Inlays
- ✓ Onlays
- ✓ Primary telescops
- ✓ Veneers
- ✓ Waxup based frameworks
- ✓ Attachments
- ✓ Model creator
- ✓ Splints
- ✓ full denture

The software grows with your needs: for advanced indications, such as implantology, a variety of add-on modules is available.

#### exocad ChairsideCAD

More automation and a simplified user experience – exocad's ChairsideCAD is optimized for clinical use



#### exoplan

Our high-performance, user-friendly open software solution for your implant planning and surgical guide design





# exocad<sup>®</sup> DentalCAD

Perpetual License	Core Lab Version	Advanced Lab Bundle	Implant Lab Bundle	Ultimate Lab Bundle
CAD Basic Version	✓	✓	✓	✓
Module Virtual Artikulator	✗	✓	✓	✓
Module Temporary crowns and bridges	✗	✓	✓	✓
Module TruSmile	✗	✓	✓	✓
Module Tooth Library ZRS	✗	✓	✓	✓
Module Implant (Abutments)	✗	✗	✓	✓
Module Bars	✗	✗	✓	✓
Module Dicom Viewer	✗	✗	✓	✓
Module Model Creator	✗	✗	✗	✓
Module Smile Creator	✗	✗	✗	✓
Module Full Denture	✗	✗	✗	✓
Module PartialCAD	✗	✗	✗	✓
Module Bite Splint	✗	✗	✗	✓
Module Jaw Motion Import / Zebris	✗	✗	✗	✓
Module In-CAD Nesting	✗	✗	✗	✗
Module Nesting (incl. In-CAD Nesting)	✗	✗	✗	✗

✗ optionally available



# HinriPart CAD

## construction software

perfect fitting & highest finish quality

### Basic software + Telescopic module + Texture recognition + Auto Design

#### HinriPart® CAD software

REF 554000

- ✓ flexible construction options
- ✓ creates open STL-File
- ✓ easy to learn
- ✓ highest precision
- ✓ includes VITA-dental data base
- ✓ no license fees
- ✓ no deformation in the framework
- ✓ digital system security
- ✓ less post processing due to best possible finish quality
- ✓ Expansion for combination technique and telescopic manufacturing is available

#### HinriPart® CAD Auto Design\*

REF 554021

- ✓ automatic construction based on drawn contours on the model

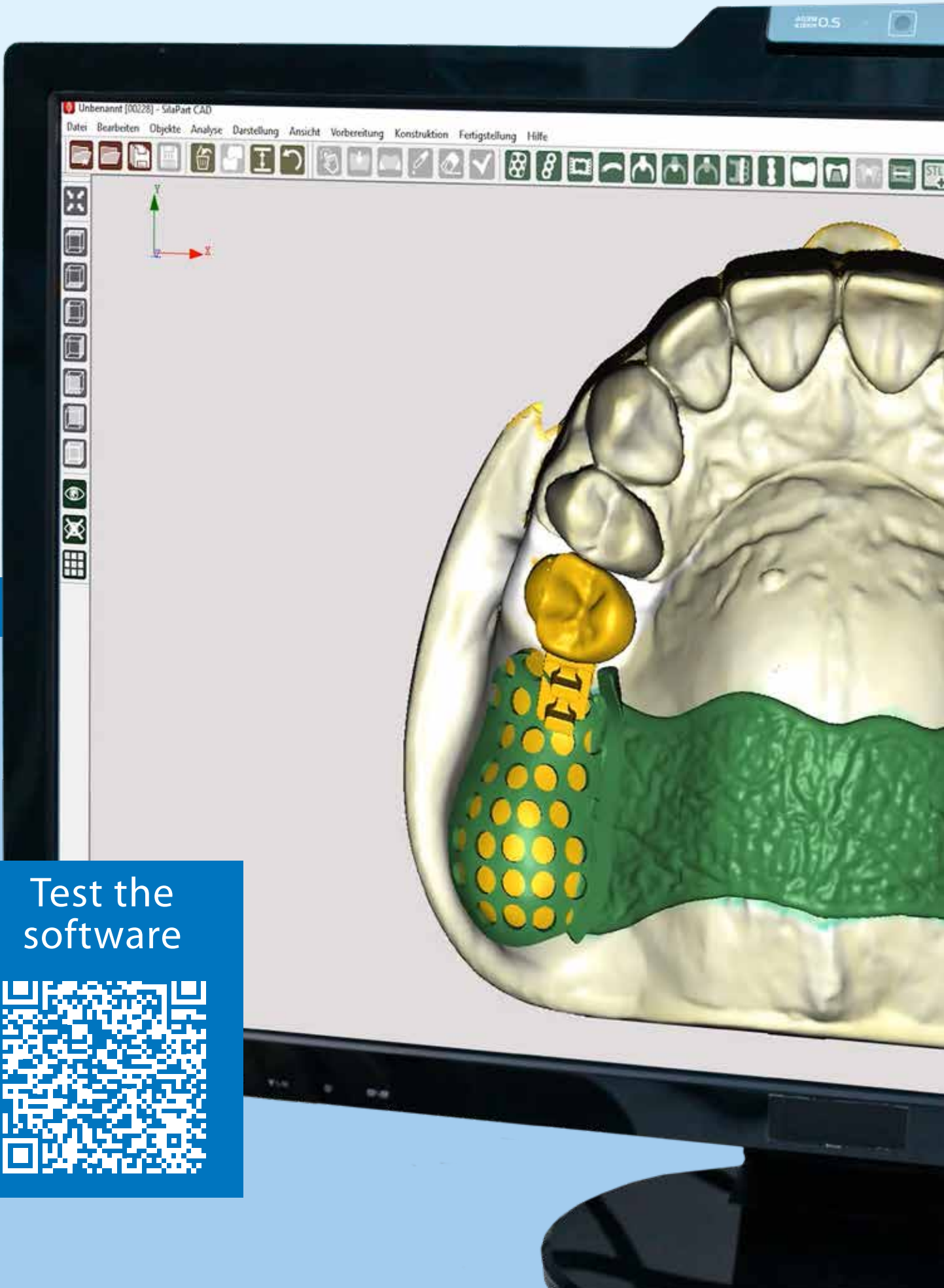
#### HinriPart® CAD telescopic-module\* REF 554010

- ✓ flexible construction options
- ✓ controllable friction
- ✓ creates open STL-File
- ✓ less post processing due to best possible finish quality

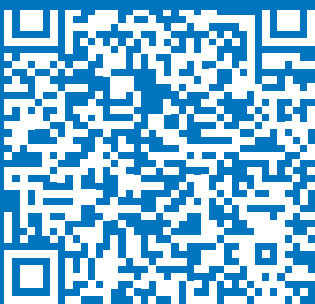
#### HinriPart® CAD texture recognition\* REF 554020

- ✓ model-cast structures and double-crownmodule
- ✓ adjustable friction with setting values
- ✓ offsets freely selectable
- ✓ preparation and design takeover through texture recognition

\* will work only in combination with the HinriPart® CAD basic software



Test the software



# HinriBite CAD

## Software for impression trays

### Easy to use & fast construction!

#### HinriBite - the digital solution for impression trays.

With HinriBite, creating impression trays has never been easier than ever before. Our software offers you an easy-to-use order management system and wizard-guided process that is easy to use even for users with no computer experience. Automatic undercut detection, additional block-out functions and fully automatic detection of the boundary line guarantee the highest precision and quality in impression taking.

HinriBite is the perfect digital solution for implantology, as it facilitates the creation of open base plates through the block-out function of cylinders. In addition, there is an individual area for additional hollow support (spacer), which can be freely determined at any point. The edge design is also freely dimensionable and thus enables a highly individual adaptation.

The quick construction of retentions or holes by marking a complete area is another useful function of HinriBite. It is also possible to insert rows of anterior teeth into the bite walls is possible.

Thanks to the possibility of importing STL, OBJ and PLY and open STL exports, HinriBite is compatible with a variety with a wide range of systems, allowing you to seamless integration into your workflow. See the power of HinriBite for yourself and of HinriBite and benefit from the highest precision, quality

and efficiency in impression taking. Order today and experience the digital future of impression technology!!

- ✔ „easy to use“ order management
- ✔ Wizard guided process, no computer experience necessary
- ✔ automatic undercut recognition
- ✔ additional blocking out function „flush out fully automatic detection of the boundary line
- ✔ block-out function cylinder for the construction of open base plates (implantology)
- ✔ individual area for additional hollowing (spacer) e.g. at the palatal suture, freely definable
- ✔ different edge design (dimensioning) freely determinable at any position
- ✔ quick construction of retentions or holes by marking a complete area
- ✔ punching in the patient's name / order number
- ✔ insertion of anterior tooth rows into the bite walls
- ✔ STL, OBJ, PLY import and open STL export





# MAGIC

## Model 3D

### Real saw cut models from the 3D printer ...

ERNST HINRICHS Dental offers the powerful CAD software **Magic® Model 3D**, which allows you to design saw-cut models for 3D printing in just a few minutes.

Independent of the design software used, **Magic® Model 3D** enables the production of real saw-cut models, starting with the **Profident evolution model system**.

With the wizard-guided user interface and the useful additional functions, such as the penetration protocol and the convenient saw-cut function, model production becomes extremely convenient and fast. In addition, you can label your models with your individual desired text and the printer customisation enables reproducible results in 3D printing.

With the possibility to create frequently used model types and save them with predefined properties as well as the import of STL, OBJ and PLY files and the open export of STL files, „Magic® Model 3D“ offers you uncomplicated model production.

The software is a one-time purchase and there are no further license costs, free updates included.

- ✓ Penetration protocol, e.g. as a grinding-in aid for early or interfering contacts.
- ✓ Low system requirements, runs on Windows™ 10 computers with their own graphics card.
- ✓ Convenient saw-cut function with definition of cut thickness, tilting of saw-cuts, placing several cuts next to or inside each other.
- ✓ The individual, storable printer adjustment makes it possible to save print parameters for different printers and resins.
- ✓ Create frequently used model types and save them with predefined properties.
- ✓ Useful additional functions such as smoothing, adding and removing material on the scan or model, loading CAD data for mock-up, integrating auxiliary bodies, engraving data into the model, etc.

**Simplify your digital model production with Magic® Model 3D!**



# profiCAD dental

## digital master models

### The digital production of models for the highest demands

precision milling in own lab  
or ordered as finished model

- ✓ **Precisely milled models made from special gypsum**  
Smooth, splinter-free surface, no gypsum dust during milling process.  
No shrinkage or expansion. Partial models of upper and lower jaw in a single work step.
- ✓ **Available as Profident or model-tray model with integrated base**  
Pre-formed milling blanks with integrated base, resp. tray allow a perfect fit.
- ✓ **Self-milling or buying finished models**  
Models in a desired design can be ordered from a profiCAD milling partner.
- ✓ **Familiar Handling**  
The unsurpassed precise gypsum models can be articulated in the familiar way,  
or mounted in a disposable orbix articulator, resp. gypsum-free in a model-tray Intercuspidator.

[www.profiCAD-dental.de](http://www.profiCAD-dental.de)

*- No shrinkage and no expansion  
- Articulation as usual*

## The profCAD-Box

- 1 x Preform blank in U-form
- 1 x Preform model quadra left
- 1 x Preform model quadra right
- 1 x Preform model holder
- 1 x Preform model holder quadra
- 1 x Dongle with CAD-Software
- 1 x Dongle with CAM-Software\*



more information about the work ow and partners can be found at:  
<http://www.profCAD-dental.de>

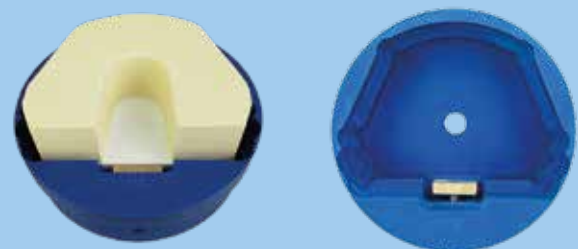
\* vhf 5-axis milling machines (except S2) with Dental-CAM 7 will not require any separate CAM software in the future

profCAD-Box	Full version	REF 890500	profCAD-Box	Rental license	REF 890501
profCAD Preform model	1 piece	REF 890542	profCAD Preform quadra model	left, 1 piece	REF 890544
profCAD Preform model	5 pieces	REF 890543	profCAD Preform quadra model	left, 5 pieces	REF 890545
profCAD model holder	1 piece	REF 890548	profCAD Preform quadra model	right, 1 piece	REF 890546
profCAD model pin base	50 pieces	REF 890550	profCAD Preform quadra model	right, 5 pieces	REF 890547
profCAD splitcast	50 pieces	REF 890555	profCAD quadra model holder	1 piece	REF 890549
profCAD Orbix-articulator	10 pieces	REF 890560	profCAD quadra model pin base	left, 50 pieces	REF 890551
profCAD model adapter	20 pieces	REF 890561	profCAD quadra model pin base	right, 50 pieces	REF 890552
profCAD milling cutter	Ø 3 mm, L: 16 mm	REF 890580	profCAD quadra model sleeve	left, 1 piece	REF 890553
profCAD milling cutter	Ø 0.6 mm, L: 16 mm	REF 890581	profCAD quadra model sleeve	right, 1 piece	REF 890554
profCAD milling cutter	Ø 2 mm, L: 4 mm	REF 890582	profCAD quadra splitcast	left, 50 pieces	REF 890556
profCAD milling cutter	Ø 3 mm, L: 3 mm	REF 890585	profCAD quadra splitcast	right, 50 pieces	REF 890557

### Preform quadra model holder



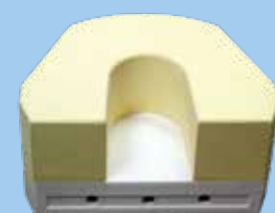
### Preform model holder



### Preform model quadra left & right on pin base plate



### Preform model on pin base plate



pin base plate for saw cut model



## Vinyl Open Air

The Vinyl Open Air is a real eye-catcher and the only completely open scanner of the Vinyl series from smart optics. Its 180° opening offers the user enormous space for inserting the models during daily routines. Despite the missing lid, the productivity of the Vinyl series is also ensured with the Vinyl Open Air.

- ✓ fully automated Z-axis
- ✓ virtual articulator
- ✓ monochrome & colored texture-scan
- ✓ Touchscreen
- ✓ dental Scan
- ✓ secondDie
- ✓ universal mode

🔍 multiDie 🔍 multiCase 🔍 Triple Tray® impression scan

Vinyl Open Air

REF 641019



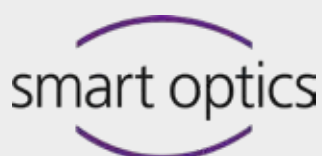
## Vinyl High Resolution (HR)

The Vinyl HR impresses with the highest precision in global and detail accuracy, which enables the user to scan every dental indication to the highest requirements.

- ✓ high resolution camera
- ✓ fully automated Z-axis
- ✓ monochrome & colored texture-scan
- ✓ Blue-Light LED
- ✓ HR and LR mode
- ✓ Triple Tray® impression scan
- ✓ multiCase
- ✓ Touchscreen
- ✓ LED status bar
- ✓ dental Scan
- ✓ virtual articulator
- ✓ secondDie and multiDie
- ✓ universal mode

Vinyl High Resolution

REF 641023



MADE IN GERMANY | SOFTWARE  
OPTICAL DENTAL SCANNERS  
ERGONOMIC | PRECISE



## Der Vinyl UXD – A SCANNER IN A CLASS OF ITS OWN

With the ambitious Vinyl UXD model (User Experience Dual) the name says it all, because the UX module of the high-performance scanner opens up a special world of operation.

- ✔ HR- and LR mode
- ✔ Selective camera mode
- ✔ Autoarticulation
- ✔ Triple Tray - impression scan
- ✔ Baltic Denture System (accessories required)
- ✔ Twin Tray model scan
- ✔ singleDie
- ✔ secondDIE
- ✔ multieDie
- ✔ multiCase
- ✔ Visual Z-axis control
- ✔ Automatic cutting plane
- ✔ Additional scan
- ✔ Correction scan
- ✔ Texture scan monochrome
- ✔ Texture scan color
- ✔ Universal project



Vinyl UXD

REF 641027

The secret of the UX module is revealed inside the Vinyl UXD, which is hardly noticeable from the outside: Here, UX stereo cameras enable monitoring of the interior, and a separate UX projector projects light points and symbols that serve as a guide on the one hand, and buttons that can be operated intuitively by hand gesture on the other. For the UX module, the system panel takes on a second function: where models and prints would otherwise take up space, a UX projection surface is created. This means that the PC as the control centre for the software can confidently move into the background.

Thanks to the enlarged system plate of the Vinyl UXD, even voluminous articulators can be easily placed in the scanner. In terms of measurement technology, the Vinyl UXD is characterized by two 3.2 megapixel cameras and highly sensitive industrial 3D sensors with Blue Light technology, which ensure outstanding depth of field and scanning accuracy. This ensures, for example, a deeper detection of the interdental spaces. And the Vinyl UXD also scans particularly quickly.

**CORRECT SKULL MEASURING**  
**FAST | EASY HANDLING**  
**OPEN INTERFACE**

smart optics



# Overview Scanner



**Vinyl Open Air**  
REF 641019



**Vinyl High Resolution**  
REF 641023



**Vinyl UXD**  
REF 641024

Measurement field ( X x Y x Z )	80 x 60 x 85 mm		
Camera pixel	1,3 MP	2,8 (1,4) MP	2x 3,2 MP
Accuracy	6 µm (according to ISO 12836)	4 µm (according to ISO 12836)	4 µm (according to ISO 12836)
Sensor technology	Stripe light triangulation with White-Light LED	Stripe light triangulation with Blue-Light LED	Stripe light triangulation with Blue-Light LED
Dimensions ( B x H x T )	455 x 430 x 420 mm		
Weight	23 kg		24 kg
Power supply	100 - 240 V AC 50/60 Hz		
Connections	1x USB 1x IEC connector		

## Software features

HR and LR mode	✘	✔	✔
Virtual articulator	✔	✔	✔
Triple Tray® impression scan	✘	✔	✔
secondDie	✔	✔	✔
multiDie	✘	✔	✔
multiCase	✘	✔	✔
Monochrome textur scan	✔	✔	✔
Color textur scan	✔	✔	✔
Universal mode	✔	✔	✔

## Measurement time

<b>Complete jaw</b>			
Scanning	16 sec	18 sec	12 sec
Matching	13 sec	17 sec	10 sec
Total	29 sec	35 sec	22 sec
<b>Single tooth</b>			
Scanning	33 sec	35 Sec	25 sec
Matching	8 sec	14 sec	6 sec
Total	41 sec	49 sec	31 sec
<b>3-unit bridge</b>			
Scanning	45 sec	50 sec	40 sec
Matching	22 sec	25 sec	15 sec
Total	67 sec	75 sec	55 sec



## Tomorrow's leading technology. Available today.

Enjoy the freedom of choice.



5 axes    16 tools    10 blanks    only wet    milling

PMMA    PEEK    ZrO<sub>2</sub>    Composites    LiSi<sub>2</sub>    Titan

### The Z4: Groundbreaking

The digital workflow makes it happen: you and your patients can benefit from more pleasant treatments with first-class restorations in just one session. The Z4 is an investment that will pay off for you: high-quality restorations with maximum independence. The number of machinable block materials constantly increases as well as the number of scanners and CAD software packages that are validated with the Z4.

From the intraoral scanner to the milling machine, users work with a single interface and therefore only need to familiarize themselves with one software package. This is the convenience of completely integrated workflows!

### The new standard in quality

When it comes to wet machining blocks, the Z4 sets unprecedented quality standards. Fabricate glass-ceramic, PMMA, zirconia and composite restorations in mere minutes and finish highly accurate prefabricated titanium abutments.

### Efficiency that is second to none

No external compressed air supply necessary. Only requires clean water. The block is clamped in two seconds. With the Z4, you can work with unparalleled efficiency.

### Highest precision

- ✓ Milling and grinding in ultra HD
- ✓ Proven industrial quality
- ✓ 3 microns repetition accuracy

### Extremely economical

- ✓ Clear water – no additives necessary
- ✓ Mill screw-access channels, to save costs for “meso” blocks
- ✓ Automatic changer for 6 tools
- ✓ Self-opening working chamber door and drawer
- ✓ Easy to learn, easy to operate
- ✓ CAM software included/Tool starter set included

### Fastest production

- ✓ Restorations in under 10 minutes
- ✓ 2-second block insertion
- ✓ 100,000 RPM electrical high frequency spindle

### Complete independence

- ✓ 38 block materials from 20 manufacturers – and growing
- ✓ 800+ prefab titanium abutment blanks from 11 manufacturers
- ✓ Validated with all established scanners and design software
- ✓ Fully integrated workflow with TRIOS Design Studio (3Shape), DWOS chairside (Dental Wings) and exocad ChairsideCAD\*
- ✓ Integrated PC with touch screen and Wi-Fi – no laptop or tablet necessary
- ✓ Built-in compressed air – no compressor needed

\* Material and indication availability may vary by CAD provider. Full range of indications and materials available in STL workflow.



## Wet grinding Reloaded. HinriMill N4 Edition

Eight liquid nozzles which are arranged at the spindle cool the whole tool evenly from the tip to the shank at all machining stages.

PMMA PEEK ZrO<sub>2</sub> Composites LiSi<sub>2</sub> ZrO<sub>2</sub>

4 axes 8 tools 3 blocks only wet grinding

### Ideal for labor/practice lab

The HinriMill N4 Edition is ideal for in-office laboratories that want to produce the work without delay and avoid the higher costs associated with external production. With the combination of the wet grinding machine HinriMill N4 Edition and a dry milling machine, users can work simultaneously and minimize the cleaning effort that most hybrid machines would require (excluding of course HinriMill R5 with its revolutionary DirectCleanTechnology).

### Für eine Vielzahl von Indikationen

For crowns and bridges, inlays, onlays, abutments, telescopic crowns, veneers, table tops, etc.

### Werkzeugwechsel im Handumdrehen

The tool magazine can be inserted quickly and effortlessly with a single movement. The automatic changer offers space for up to 8 tools.

### Exceptional precision

- ✓ Restorations in ultra HD
- ✓ Premium spindle with 4-fold hybrid ceramic ball bearings for maximum running smoothness
- ✓ 3 microns repetition accuracy

### Sophisticated design

- ✓ Eight fluid nozzles for even tool cooling
- ✓ Highest rotational speeds of up to 80,000 RPM with 800 watts of power
- ✓ Heavy industrial quality

### Absolute independence

- ✓ 38 block materials from 20 manufacturers – and rising
- ✓ 1,300+ titanium and CoCr prefabricated abutment blanks from 11 manufacturers
- ✓ Ideal for labs and in-office labs

### Validated results

- ✓ Researchers at University of Washington confirmed exceptional precision of – 10 µm and + 26 µm with milling of titanium custom abutments

### Maximum economy

- ✓ Work on up to 3 blocks with 45 mm length at the same time
- ✓ Automatic changer for 8 tools
- ✓ Webcam in working chamber for remote monitoring
- ✓ Ethernet interface for stable connection
- ✓ Removable coolant tank
- ✓ DentalCAM software with DirectMill function – included in scope of delivery and without license fees

## HinriMill R5 - redefined milling

10 Discs

60 Blocks

60 Prefab Abutments

blank changer for 10 blanks

Direct Technology



5  
Achsen

16  
Werkzeuge

10  
Blanks

trocken  
& nass

Schleifen  
& Fräsen

PMMA

PEEK

ZrO<sub>2</sub>

Composites

LiSi<sub>2</sub>

CoCr

Titan

Gips

With the new high-end R5 dental lab machine, ERNST HINRICHS Dental has developed a highly automated milling and grinding machine with a tenfold blank changer for both wet and dry machining, bringing revolutionary approaches to the lab. It combines utmost precision with maximum stability regardless of material – all with a minimal footprint.

Operating the machine is also incredibly simple thanks to various patent-pending technologies: With Direct Disc Technology, milling blanks can now be processed directly without any cumbersome fiddling with the tenter frames. The R5 can be used with a maximum variety of materials when it comes to discs, blocks and abutments and therefore provides perfect investment protection!

The ability to feed milling blanks up to 40 mm thickness via a blank changer and get right to work is another highlight. Even better is the generous tilt angle for the fifth axis of  $\pm 35$  degrees. The R5 thereby guarantees a maximum of indication variety and freedom of design.

### Maximum Precision

- ✓ Restorations in ultra HD
- ✓ Water-cooled high-precision spindle
- ✓ 3 microns repetition accuracy

### Unmatched Reliability

- ✓ 100 percent engineered and manufactured in Germany
- ✓ Comprehensive sensor technology to monitor all vital system functions
- ✓ Two webcams for remote monitoring

### Highly Economical

- ✓ One of the fastest machines on the market
- ✓ Revolutionary material loading with Direct Disc Technology
- ✓ Automatic changer holds up to 10 discs, 60 blocks, or 60 prefab abutment blanks
- ✓ Direct Clean Technology enables wet and dry on the fly: ionizer, self-cleaning and built-in dryer

### Absolute Independence

- ✓ Sheer unlimited material accessibility in 98 mm disc format, 30 block materials, and > 140 titanium and CoCr prefab abutment platforms
- ✓ Covers the broadest range of indications, due to  $\pm 35^\circ$  rotation angle in the 5th axis, and up to 40 mm blanks



## THE GLOBAL BESTSELLER. WITH EVEN MORE FEATURES

In addition to the three linear axes in x, y and z, two rotary axes ensure many and varied machining options.

5 axes    16 tools    1 blank    dry    milling

PMMA    PEEK    ZrO<sub>2</sub>    Composites    CoCr    Gypsum

**Proven quality now even better:** with the dental milling machine HinriMill T5 Edition, you will achieve perfect results. Process a wide range of materials and indications (blanks up to 40 mm) with five axes. Revolutionary technologies, such as tool-free blank clamping and an integrated ionizer, help you attain top-quality results.

### Unparalleled precision

- ✓ Restorations in ultra HD
- ✓ Premium spindle with 4-fold hybrid ceramic ball bearings for highest running accuracy
- ✓ 3 microns repetition accuracy

### Powerful and robust

- ✓ Mills the toughest materials on the market, incl. CoCr
- ✓ Powerful 500 watt spindle and 60,000 RPM
- ✓ Heavy industrial quality for maximum stiffness
- ✓ Solid cast body for the lowest vibrations

### Maximum independence

- ✓ Unlimited material accessibility in 98 mm disc format, separate block and prefab abutment holders available
- ✓ Covers the broadest range of indications, due to  $\pm 35^\circ$  rotation angle in the 5th axis, and up to 40 mm blanks

### Proven German reliability

- ✓ 100% engineered and manufactured in Germany
- ✓ Sophisticated sealing air concept to protect mechanics, electronics, and spindle
- ✓ Webcam for remote support
- ✓ Ethernet for stable long-range connection

### Extremely economical

- ✓ Ionizer and improved air circulation for easy machine cleaning
- ✓ DirectDiscTechnology for revolutionary disc clamping
- ✓ Automatic changer for 16 tools
- ✓ Easy to operate DentalCAM with DirectMill function included – no annual fees

### Special features of the HinriMill T5 Edition

- ✓ ionizer and improved air circulation for easy machine cleaning
- ✓ DirectDiscTechnology for revolutionary disc clamping (One-handed clamping)
- ✓ built-in webcam for remote support
- ✓ Ethernet connection for stable long-range connection

## Dusk-till-dawn milling and grinding..

- 8 Discs
- 24 Blocks
- 48 Prefab Abutments
- 16 Tools
- 3 Ionizers



PMMA PEEK ZrO<sub>2</sub> Composites LiSi<sub>2</sub> CoCr Titan Gypsum

5 axes 16 tools 8 blanks wet & dry milling & grinding

The HinriMill 5.8 Edition is a highly versatile dental milling machine. It has five simultaneously operating axes, a blank changer for eight blanks and is designed for both dry and wet machining. With the optional wet grinding module, you can grind all common types of glass ceramic.

### Five simultaneously operating axes

The second rotary axis (B axis) with a tilt angle of up to  $\pm 0$  degrees enables the precise milling of undercuts.

### Non-Stop machining

Thanks to the eightfold blank changer, you get performance that won't stop. The changer can be loaded with blanks via a small flap in the front and the correct blank for your milling job is then automatically inserted into the clamping device when needed. As a result, you can mill around the clock.

### Highest precision

- ✓ Restorations in ultra HD
- ✓ Premium spindle with precision bearing, a powerful 600 watts and 60,000 RPM
- ✓ 3 microns repetition accuracy

### Tremendous stability

- ✓ Processes all types of materials, including CoCr, Titanium and glass-ceramics
- ✓ Solid cast-body for minimum vibrations

### Maximum variety

- ✓ Almost unlimited material accessibility in 98 mm disc format as well as 38 block materials and > 800 prefabricated titanium and CoCr abutment blanks
- ✓ Large indication diversity due to a  $\pm 30^\circ$  rotation angle in the 5th axis, and up to 30 mm blanks
- ✓ Optional wet-grinding module converts the S5 into a wetprocessing machine

### Outstanding reliability

- ✓ Day and night operation
- ✓ 100 % engineered and manufactured in Germany

### Maximum efficiency

- ✓ Milling and grinding around the clock due to automatic changer for 8 discs, 24 blocks or 48 prefabricated abutments
- ✓ Automatic changer for 16 tools
- ✓ 3 ionizers neutralize the static charge of acrylic chips – for a clean working chamber
- ✓ Very easy to operate via DentalCAM software with DirectMill function – included in scope of delivery and without license fees

NEW



## SAME-DAY DENTISTRY

### HinriMill e4

Developed and manufactured entirely in Germany, the SilaMill e4 guarantees impressive manufacturing results and optimum reliability.

4  
Axes

7  
Tools

1  
Block

wet &  
dry

milling &  
grinding

PMMA PEEK ZrO<sub>2</sub> Composites LiSi<sub>2</sub> ZrO<sub>2</sub>

Digitize your practice with the HinriMill e4. You and your patients can benefit from restorations in just one session of treatment

The new HinriMill e4 makes it so easy for you to get started with chairside production of dental restorations, and gives you maximum freedom. Combine the HinriMill e4 with your preferred intraoral scanner, any CAD software and materials that are appropriate for your individual patients. The HinriMill e4 is the heart of your workflow and produces the perfect restoration for you.

The integrated CAM software enables you to get started right away!

#### RELIABILITY MEETS PRECISION.

Developed and manufactured entirely in Germany, the HinriMill e4 guarantees impressive manufacturing results and optimum reliability. Despite its compact design, the machine comprises only high-quality industrial components in the housing.

With a machine weight of only 28 kg and no use of compressed air, the HinriMill e4 offers maximum flexibility in terms of installation. You can set the HinriMill e4 anywhere.

**True to the motto: unpack, connect, start milling!**

#### Innovative

- ✓ No compressed air required with the patent-pending AIRTOOL
- ✓ Machine design optimized for minimal weight
- ✓ Multi-compartment for cooling liquid tank or optional dry milling container
- ✓ Modular machine design to optimize servicing and maintenance

#### Reliable

- ✓ 100% developed and manufactured in Germany
- ✓ Optimum manufacturing results and high durability with only premium-quality industrial components

#### Fast & precise

- ✓ 800 W 60,000 rpm spindle
- ✓ 3 µm repetition accuracy
- ✓ Sturdy aluminum welded construction

#### Independent

- ✓ DENTCAM software with open interface to CAD software and materials
- ✓ Virtually any intraoral scanners can be used
- ✓ Grinds and mills almost all block materials up to 45 mm long from numerous manufacturers
- ✓ A full range of materials for glass ceramics, composites, zirconia and plastic



No compressed air needed  
and many innovations.

## HinriMill e5

Optimize your digital workflow, enjoy maximum freedom and achieve perfect results with optimum efficiency



PMMA

PEEK

ZrO<sub>2</sub>

Composites

5  
Axes17  
Tools1  
Blanks

dry

milling

The HinriMill e5 requires no compressed air; therefore, you have maximum freedom in the choice of the installation site, and you also benefit from minimal operating costs. The open system architecture of the HinriMill e5 makes your entry into the digital production of dental restorations quick and easy, and it fits perfectly into your workflows. The integrated CAM software enables you to get started right away!

**Plug & Mill: Unpack, connect, start milling!**

**No compressed air needed - due to AIRTOOL.**

One great innovation of the HinriMill e5 is that it does not use compressed air: The HinriMill e5 requires neither an external compressed air connection nor an integrated compressor, which is only possible with our patent-pending AIRTOOL. The AIRTOOL turbine blades use the speed of the high-frequency spindle to generate a powerful air flow, which keeps the workpiece free from dust and chippings. They are removed by vacuum from a dust collector

### Innovative

- ✓ No compressed air required with the patent-pending AIRTOOL
- ✓ Machine design optimized for minimal weight
- ✓ C-holder for 90° machining of anterior teeth (coming soon)
- ✓ Modular machine design to optimize servicing and maintenance

### Reliable

- ✓ 100% developed and manufactured in Germany
- ✓ Optimum manufacturing results and high durability with only premium-quality industrial components

### Fast & precise

- ✓ 800 W 60,000 rpm spindle
- ✓ 3 µm repetition accuracy
- ✓ Cast aluminum body for low vibration in operation

### Independent

Mills almost all materials up to CoCr sintered metals in a 98.5 mm disc format, holders available for 110 mm discs and blocks

Maximum indication versatility with a rotating angle of ±35° in the 5th axis and blanks with a thickness of up to 40 mm

DENTALCAM software with open interface to all scanners and materials

# Overview milling machines



**HinriMill N4 edition**  
REF 640017

**HinriMill Z4**  
REF640012

**HinriMill T5/T5 Edition**  
REF 640014 / 640018

**HinriMill 5.8 edition**  
REF 640005

	HinriMill N4 edition REF 640017	HinriMill Z4 REF640012	HinriMill T5/T5 Edition REF 640014 / 640018	HinriMill 5.8 edition REF 640005
<b>Fields of application</b>	wet machining	wet machining	dry machining	dry and wet machining
<b>Materials</b>	<ul style="list-style-type: none"> <li>✔ Glass ceramic</li> <li>✔ Composites</li> <li>✔ Titanium</li> <li>✔ Zirconium oxide in block form</li> </ul>	<ul style="list-style-type: none"> <li>✔ Glass ceramic</li> <li>✔ Composites</li> <li>✔ Titanium</li> <li>✔ Zirconium oxide in block form</li> </ul>	<ul style="list-style-type: none"> <li>✔ Resin / PEEK</li> <li>✔ Wax</li> <li>✔ Zirconium oxide</li> <li>✔ Composites</li> <li>✔ CoCr</li> <li>✔ Gypsum</li> </ul>	<ul style="list-style-type: none"> <li>✔ Resin / PEEK</li> <li>✔ Wax</li> <li>✔ Zirconium oxide</li> <li>✔ Nano-Composites</li> <li>✔ Glass ceramic</li> <li>✔ CoCr</li> <li>✔ Titanium*</li> <li>✔ Gypsum</li> </ul>
<b>Indications</b>	<ul style="list-style-type: none"> <li>✔ Crowns</li> <li>✔ Bridge frameworks</li> <li>✔ Inlays</li> <li>✔ Onlays</li> <li>✔ fully anatomical Crowns and bridge frameworks</li> <li>✔ Abutments</li> <li>✔ Veneers</li> </ul>	<ul style="list-style-type: none"> <li>✔ Crowns</li> <li>✔ Bridge frameworks</li> <li>✔ Inlays</li> <li>✔ Onlays</li> <li>✔ fully anatomical Crowns and bridge frameworks</li> <li>✔ Abutments</li> <li>✔ Veneers</li> </ul>	<ul style="list-style-type: none"> <li>✔ Crowns</li> <li>✔ Bridge frameworks</li> <li>✔ Inlays</li> <li>✔ Onlays</li> <li>✔ fully anatomical Crowns and bridge frameworks</li> <li>✔ Abutments (only CoCr)</li> <li>✔ Telescope crowns</li> <li>✔ Model plates</li> <li>✔ Model casting</li> <li>✔ Occlusal covers</li> <li>✔ Model plug teeth</li> <li>✔ Implantbars</li> <li>✔ Veneers</li> </ul>	<ul style="list-style-type: none"> <li>✔ Crowns</li> <li>✔ Bridge frameworks</li> <li>✔ Inlays</li> <li>✔ Onlays</li> <li>✔ fully anatomical Crowns and Bridge frameworks</li> <li>✔ Abutments</li> <li>✔ Telescope crowns</li> <li>✔ Model plates</li> <li>✔ Model casting</li> <li>✔ Occlusal covers</li> <li>✔ Model plug teeth</li> <li>✔ Implantbars</li> <li>✔ Veneers</li> </ul>
<b>no. of axes</b>	4	4	5	5
<b>Rotation range of the axes</b>	A: + 190° up to - 10°	A: + 190° up to - 10°	A: ± 360° B: ± 35°	A: ± 360° B: ± 30°
<b>Spindle speed</b>	up to 80.000 U/min	up to 100.000 U/min	up to 60.000 U/min	up to 60.000 U/min
<b>Dimensions</b>	360 x 450 x 470 mm	471 x 522 x 507 mm	450 x 545 x 630 mm	692 x 445 x 540 mm
<b>Weight</b>	53 kg	66 kg	91 kg	106 kg
<b>Power supply</b>	100 – 240 V   50/60 Hz			
<b>Compressed air demand</b>	4-8 bar   25 l/min - 45 l/min	-	6-8 bar   80 l/min - 102 l/min	6-8 bar   mind. 80 l/min
<b>Warranty</b>	12 months			
<b>Flow rate suction</b>	x	x	2500 l/min	3000 l/min
<b>Room temperature</b>	18-25 °C   max. 32°C			
<b>Humidity</b>	max. 80%			

\* in combination with wet grinding option





## HinriMill R5

REF 640004

dry and wet machining

- ✓ Resin / PEEK
- ✓ Wax
- ✓ Zirconium oxide
- ✓ Nano-Composites
- ✓ Glass ceramic
- ✓ CoCr
- ✓ Titanium\*
- ✓ Gypsum

- ✓ Crowns
- ✓ Bridge frameworks
- ✓ Inlays
- ✓ Onlays
- ✓ fully anatomical Crowns and Bridge frameworks
- ✓ Abutments
- ✓ Telescope crowns
- ✓ Model plates
- ✓ Model casting
- ✓ Occlusal covers
- ✓ Model plug teeth
- ✓ Implantbars
- ✓ Veneers

5

A: ± 360°  
B: ± 35°

up to 80.000 U/min

580 x 600 x 700 mm

149 kg

6 - 8 bar | 105 l/min - 110 l/min

3500 l/min

## HinriMill e4

REF 640504

dry and wet machining

- ✓ Resin / PEEK
- ✓ Wax
- ✓ Zirconium oxide
- ✓ Composites
- ✓ Glass ceramic

- ✓ Crowns
- ✓ Bridge frameworks
- ✓ Inlays
- ✓ Onlays
- ✓ fully anatomical Crowns and Bridge frameworks
- ✓ Abutments
- ✓ Telescope crowns
- ✓ Veneers

4

A: + 190° bis - 10°

up to 60.000 U/min

360 x 370 x 490 mm

28 kg

100 - 240 V | 50/60 Hz

-

dry & oil free

12 months

2500 l/min

18-25 °C | max. 32°C

max. 80%

## HinriMill e5

REF 640506

dry machining

- ✓ Resin / PEEK
- ✓ Wax
- ✓ Zirconium oxide
- ✓ Nano-Composites

- ✓ Crowns
- ✓ Bridge frameworks
- ✓ Inlays
- ✓ Onlays
- ✓ fully anatomical Crowns and Bridge frameworks
- ✓ Abutments
- ✓ fully anatomical Crowns and Bridge frameworks
- ✓ Model plates
- ✓ Model casting
- ✓ Occlusal covers
- ✓ Model plug teeth
- ✓ Implantbars
- ✓ Veneers

5

A: ± 360°  
B: ± 35°

up to 60.000 U/min

472 x 484 x 734 mm

43 kg

-

2500 l/min

Fields of application

Materials

Indications

No. of axes

Rotation range of the axes

Spindle speed

Dimensions

Weight

Power supply

Compressed air demand

Warranty

Flow rate suction

Room temperature

Humidity



## SILENT powerCAM EC

extraction unit for CAM systems



Powerful extraction unit with EC motor, bag-free, fine filter technology, suitable for frequently used CAM systems.

### Technical data

Suction turbine power	1610 VA (230 V)
Volume flow (max.)	3984 l/min
Max. depression	257 hPa
Filter technology	Bag- free
Filter quality	Class M according to EN 60335-2-69
CAM interface	RJ 45 socket
PLC: Input signal	2 x turbine suction level 1, suction level 2, turbine off, filter cleaning
PLC: Output signal	2 x filter cleaning – status information
Mains input fuse	2 x 15 A(T)
Number of suction hoses	1

### Properties

Dimensions	270 x 535 x 540 mm
Weight	18 kg
Suction fittings interior	42 mm Ø
Fill level dust collector	7 liter

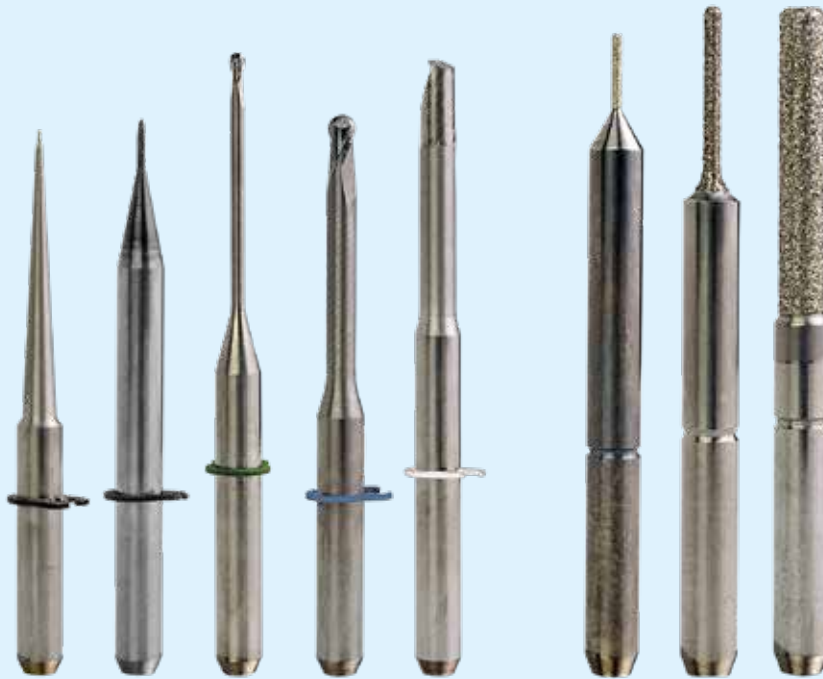
### Advantages

- ✓ Reliable production process thanks to a low-maintenance EC motor with 5,000 guaranteed operating hours.
- ✓ Suitable for CAD-CAM systems requiring high suction performance due to a powerful motor with a max. flow rate of 4000l/min.
- ✓ High operating comfort thanks to bidirectional communication with the CAM system via PLC control.

### Details

- ✓ No dust bag change due to bag-free fine filter technology, including automatic filter cleaning.
- ✓ Safe disposal of fine milling dusts with the aid of a disposal bag.
- ✓ Very low operating noise of 54.3 dB(A).

## The suitable tools for your milling materials



Tools for high loads and significant longer life.

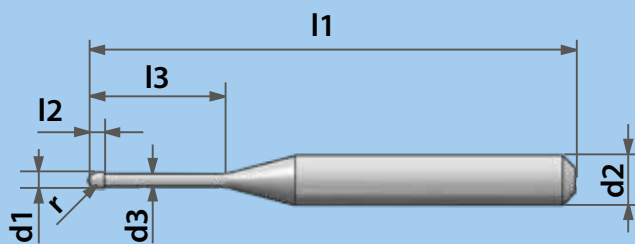
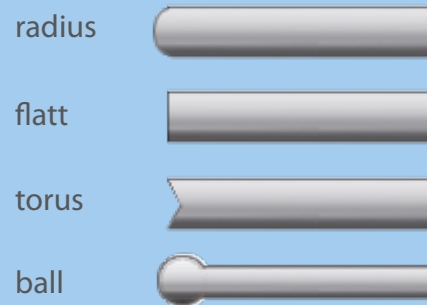
### The suitable tools for your milling materials

It doesn't matter if you use a 4- or 5-axes milling machine.

Depending on the purpose, we offer different lengths and geometries.








You can get further information about that topic in our online shop or directly from our technicians.

### cutting geometries



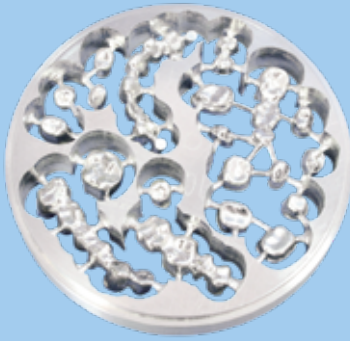
$l1$  = total length  
 $l2$  = cutting length  
 $l3$  = free grinding length  
 $r$  = radius  
 $d1$  = cutting diameter  
 $d2$  = shaft diameter  
 $d3$  = free grinding diameter

# Overview milling tools

Material	Colourcode	HinriMill	Type
Universal cutter		HinriMill 4 / N4	Double-toothed radius cutter
			Flat grinded double tooth cutter
			Double-toothed radius cutter with coating
		HinriMill 5 / 5.8 / T5 / R5	Flat grinded double tooth cutter with coating
			Double-toothed radius cutter
			Flat grinded double tooth cutter with coating
Zirconium oxide with special coating		HinriMill 4 / N4 / Z4	Double-toothed radius cutter
			Triple-toothed radius cutter
			Double-toothed radius cutter
		HinriMill 5 / 5.8 / T5 / R5	Triple-toothed radius cutter
			Double-toothed radius cutter
			Triple-toothed radius cutter
Zirconium oxide with diamond coating		HinriMill 4 / N4 / Z4	Double-toothed radius cutter
			Double-toothed radius cutter
			Triple-toothed radius cutter
			Flat grinded double tooth cutter
			Double-toothed radius cutter
		HinriMill 5 / 5.8 / T5 / R5	Double-toothed radius cutter
			Triple-toothed radius cutter
			DTriple-toothed radius cutter AIRTOOL
			Flat grinded double tooth cutter
Glass ceramic		HinriMill N4 / Z4 5 / 5.8 / R5	Radius grinder
			Torus grinder
			Radius grinder
			Torus grinder
			Radius grinder
			Torus grinder
			Radius grinder
			Torus grinder
Non-precious alloys on CoCr basis & Titanium only with wet grinding option		HinriMill 4 / N4 / Z4	Double-toothed radius cutter
			Double-toothed radius cutter
			Double-toothed torus cutter
			Double-toothed radius cutter
			Four-toothed radius cutter
		HinriMill 5 / 5.8 / T5 / R5	Double-toothed radius cutter
			Double-toothed radius cutter
			Double-toothed torus cutter
			Double-toothed radius cutter
			Four-toothed radius cutter
Wax and Plastics		HinriMill 4 / N4 / Z4	Single-toothed radius cutter
			Double-toothed radius cutter
			Single-toothed radius cutter
			Double-toothed radius cutter
			Flat grinded single tooth cutter
		HinriMill 5 / 5.8 / T5 / R5	Single-toothed radius cutter
			Double-toothed radius cutter
			Single-toothed radius cutter
			Double-toothed radius cutter
			Flat grinded single tooth cutter
Nanocomposites with special coating		HinriMill 4 / N4 / Z4	Double-toothed radius cutter
			Double-toothed radius cutter
			Single-toothed radius cutter
			Single-toothed radius cutter
			Double-toothed radius cutter
			Double-toothed radius cutter
		HinriMill 5 / 5.8 / T5 / R5	Single-toothed radius cutter
			Double-toothed radius cutter
			Single-toothed radius cutter
			Single-toothed radius cutter
			Single-toothed radius cutter
			Single-toothed radius cutter
			Single-toothed radius cutter AIRTOOL



Ø Blade	Length Blade	Length	CAM-Code	REF
0.3	0.6	35	U030-R2-35	640153
0.5	1.5	35	U050-F2-35	640152
0.6	1.2	35	U060-R2-35	640151
1.2	5.0	35	U120-F2-35	640150
0.3	0.6	40	U030-R2-40	640253
0.5	1.5	40	U050-F2-40	640252
0.6	1.2	40	U060-R2-40	640251
1.2	5.0	40	U120-F2-40	640250
1.0	2.0	35	Z100-R2-35	640141
2.0	4.0	35	Z200-R3-35	640142
1.0	2.0	40	Z100-R2-40	640231
2.0	4.0	40	Z200-R3-40	640232
0.6	1.2	35	Z060-R2D-35	640160
1.0	2.0	35	Z100-R2D-35	640161
2.0	4.0	35	Z200-R3D-35	640162
1.2	5.0	35	Z120-F2D-35	640163
0.6	1.2	40	Z060-R2D-40	640240
1.0	2.0	40	Z100-R2D-40	640241
2.0	4.0	40	Z200-R3D-40	640242
2.0	4.0	40	Z200-R3D-40-T	640144
1.2	5.0	40	Z120-F2D-40	640243
0.6	5.5	35	G060-R-35	640262
0.6	4.0	35	G060-T-35	640263
1.0	8.0	35	G100-R-35	640260
1.2	9.0	35	G120-T-35	640264
2.4	16.0	35	G240-R-35	640266
2.6	16.0	35	G260-T-35	640261
0.6	1.2	32	M060-R2-32	640300
1.0	3.0	32	M100-R2-32	640301
1.2	3.0	32	M120-T2-32	640303
2.0	4.0	32	M200-R2-32	640302
2.0	4.0	32	M200-R4-32	640304
0.6	1.2	35	M060-R2-35	640310
1.0	3.0	35	M100-R2-35	640311
1.2	3.0	35	M120-T2-35	640313
2.0	4.0	35	M200-R2-35	640312
2.0	4.0	35	M200-R4-35	640314
1.0	4.0	35	P100-R1-35	640115
1.0	2.0	35	P100-R2-35	640111
2.0	8.0	35	P200-R1-35	640116
2.0	4.0	35	P200-R2-35	640112
2.5	5.0	35	P250-F1-35	640114
1.0	4.0	40	P100-R1-40	640205
1.0	2.0	40	P100-R2-40	640201
2.0	8.0	40	P200-R1-40	640206
2.0	4.0	40	P200-R2-40	640202
2.5	5.0	40	P250-F1-40	640204
2.5	5.0	40	P250-F1-40-T	640208
1.0	2.0	35	C100-R2-35	640121
2.0	2.0	35	C200-R2-35	640122
1.0	4.0	35	C100-R1D-35	640124
2.0	8.0	35	C200-R1D-35	640125
1.0	2.0	40	C100-R2-40	640211
2.0	4.0	40	C200-R2-40	640212
1.0	4.0	40	C100-R1D-40	640214
2.0	8.0	40	C200-R1D-40	640215
2.0	8.0	40	C200-R1D-40-T	640216



## Keralloy® BioStar

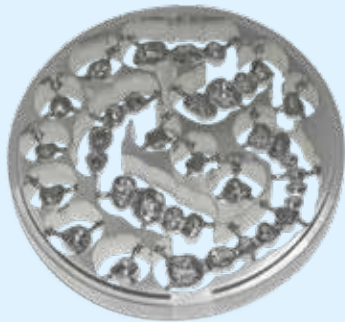
Keralloy® BioStar is a precious metal free, chromium cobaltbased milling alloy according DIN EN ISO 22674, type 4. Keralloy® BioStar does not contain any beryllium, indium or gallium.

Keralloy® BioStar is easy to mill and guarantees a high biocompatibility. This alloy allows to mill thinnest frames. Its molecular structure allows smooth, compact surfaces with less oxide formation. Its thermal expansion coefficient is ideal for every ceramic of the latest generation. With shoulder.

Indications:

- Crowns and bridges
- One-piece abutments
- Implant superstructures
- optimizes lasering

Keralloy® BioStar, with shoulder	Ø 98.5 mm, H 8 mm	REF 128410
Keralloy® BioStar, with shoulder	Ø 98.5 mm, H 10 mm	REF 128411
Keralloy® BioStar, with shoulder	Ø 98.5 mm, H 12 mm	REF 128412
Keralloy® BioStar, with shoulder	Ø 98.5 mm, H 13,5 mm	REF 128413
Keralloy® BioStar, with shoulder	Ø 98.5 mm, H 15 mm	REF 128414
Keralloy® BioStar, with shoulder	Ø 98.5 mm, H 18 mm	REF 128415
Keralloy® BioStar, with shoulder	Ø 98.5 mm, H 20 mm	REF 128416



## CoCr BioStar

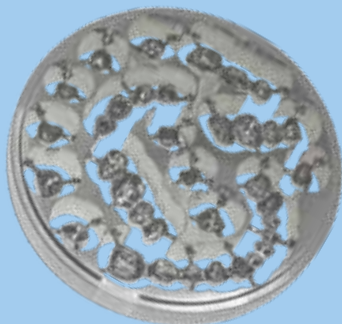
CoCr BioStar is a precious metal free, chromium cobalt-based alloy for the dental application used in dental milling machines (CAD-CAM). It does not contain any nickel, beryllium or gallium.

One of the remarkable features is the high corrosionresistance and biocompatibility. CoCr BioStar is suitable for soldering. Its low hardness allows CoCr BioStar to be easily milled.

Indications:

- Crowns and bridges
- One-piece abutments
- Implant superstructures
- optimizes lasering

CoCr BioStar, with shoulder	Ø 98.3 mm, H 08 mm	REF 128200
CoCr BioStar, with shoulder	Ø 98.3 mm, H 10 mm	REF 128201
CoCr BioStar, with shoulder	Ø 98.3 mm, H 12 mm	REF 128202
CoCr BioStar, with shoulder	Ø 98.3 mm, H 13,5 mm	REF 128203
CoCr BioStar, with shoulder	Ø 98.3 mm, H 15 mm	REF 128204
CoCr BioStar, with shoulder	Ø 98.3 mm, H 18 mm	REF 128205
CoCr BioStar, with shoulder	Ø 98.3 mm, H 20 mm	REF 128206
CoCr BioStar, with shoulder	Ø 98.3 mm, H 24,5 mm	REF 128207



## TITAN BioStar °5

Biocompatible pure titanium milling blank for porcelain fused to metal (PFM) techniques. Titan BioStar admits easy laser welding and can be red using all usual porcelain indicated for titanium.

Indications:

- crowns both front and lateral
- bridge frames in frontal and lateral areas with up to three units
- Production of Abutments and bars

Titan BioStar °5, with shoulder	Ø 98.5 mm, H 8 mm	REF 128260
Titan BioStar °5, with shoulder	Ø 98.5 mm, H 10 mm	REF 128261
Titan BioStar °5, with shoulder	Ø 98.5 mm, H 12 mm	REF 128262
Titan BioStar °5, with shoulder	Ø 98.5 mm, H 13,5 mm	REF 128263
Titan BioStar °5, with shoulder	Ø 98.5 mm, H 15 mm	REF 128264
Titan BioStar °5, with shoulder	Ø 98.5 mm, H 18 mm	REF 128265
Titan BioStar °5, with shoulder	Ø 98.5 mm, H 20 mm	REF 128266



## Hinriplast® BioStar

A milling gypsum blank with an extraordinary edge stability, produced from resin reinforced super hard stone. The mechanical properties are matched to meet the requirements of milling parameters and guarantees smooth and splinter-free surfaces. Cause of the special formulation the Preform models do not show any dust during the milling process, only gypsum chippings.

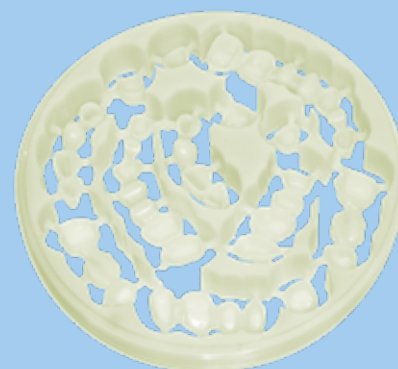
Colour: ivory



Hinriplast® BioStar mit Schulter	Ø 98.5 mm, H 25 mm, 1 Stück	REF 550044
Hinriplast® BioStar mit Schulter	Ø 98.5 mm, H 30 mm, 1 Stück	REF 550041

## Wax BioStar

A milling wax disc especially adjusted to the dental CAD/CAM technique. Thereby crowns and bridges can be virtually formed, milled and finally casted the conventional way. The wax is excellently machinable and burns without residue. This results in smooth casted surfaces. These optimized features of the wax give way to even very delicate forms excluding shrinkage or distortion of the milled object. The wax – stable in volume – permits absolutely exact margin finishing and fits. Up to 30 units can be milled out of one disc.



Wax BioStar, with shoulder	Ø 98.5 mm, H 14 mm	REF 550028
Wax BioStar, with shoulder	Ø 98.5 mm, H 16 mm	REF 550029
Wax BioStar, with shoulder	Ø 98.5 mm, H 18 mm	REF 550030
Wax BioStar, with shoulder	Ø 98.5 mm, H 25 mm	REF 550031

## HinriPart BioStar

A special milling disc for the production of perfect partial denture frameworks.

- suitable for all open milling systems
- flexible and brake resistant
- precise and fast milling
- burns out without any residues
- also suitable for milling crowns and bridges

HinriPart BioStar, with shoulder	Ø 98.5 mm, H 16 mm	REF 550080
HinriPart BioStar, with shoulder	Ø 98.5 mm, H 18 mm	REF 550081
HinriPart BioStar, with shoulder	Ø 98.5 mm, H 20 mm	REF 550082
HinriPart BioStar, with shoulder	Ø 98.5 mm, H 25 mm	REF 550083
HinriPart BioStar, with shoulder	Ø 98.5 mm, H 30 mm	REF 550084

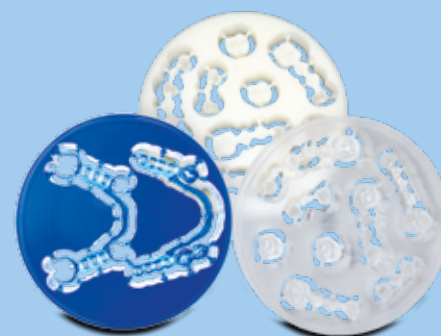


## PMMA BioStar

Dental milling discs based on PMMA (polymethylmethacrylate) which burn out residue-free and are developed for the casting technique. PMMA BioStar burns out without residue.

PMMA BioStar is available in 3 different colours.

PMMA BioStar transparent	Ø 98.5 mm, H 14 mm	REF 550050
PMMA BioStar transparent	Ø 98.5 mm, H 18 mm	REF 550051
PMMA BioStar transparent	Ø 98.5 mm, H 25 mm	REF 550060
PMMA BioStar transparent	Ø 98.5 mm, H 30 mm	REF 550061
PMMA BioStar blue	Ø 98.5 mm, H 14 mm	REF 550054
PMMA BioStar blue	Ø 98.5 mm, H 18 mm	REF 550055
PMMA BioStar blue	Ø 98.5 mm, H 20 mm	REF 550056
PMMA BioStar blue	Ø 98.5 mm, H 25 mm	REF 550057
PMMA BioStar ivory	Ø 98.5 mm, H 14 mm	REF 550058
PMMA BioStar ivory	Ø 98.5 mm, H 18 mm	REF 550059
PMMA BioStar ivory	Ø 98.5 mm, H 25 mm	REF 550062





## Splint Plus BioStar

A transparent, highly meshed poly carbonate milling disc.

Indications: on-bite splints, therapeutic splints, unbreakable provisional arrangements, drilling guides, positioners, snap on Smile, metal clasp-free partial prosthesis.

Advantages:

- very high break resistance
- high cost effectiveness
- can be milled extremely thin
- comfortable biting hardness – not too hard and not too soft



## Splint PMMA BioStar

Thermoplastic acrylic polymer based on polymethylmethacrylate (PMMA)

Indications: Splint PMMA BioStar are transparent dental milling blanks out of PMMA for the manufacture of splints, therapeutic splints, bite regulators and drilling templates for long-term application in the oral cavity up to 12 months.

Advantages:

- biocompatible – medical thermoplastic, no chemoplastic!
- industrially polymerized – minimal residual monomer content
- high fracture resistance and long-term stability (bruxism treatment)
- lowest water absorption – long-term stability of the fit
- good polishing properties, smooth surface are less susceptible to discoloration and plaque deposits, which at the same time minimizes the risk of inflammation.



## DD BioSplint Flex

The DD Bio Splint FLEX blanks are made of a thermoplastic copolymer based on a medical grade PETG. The material is characterized by high flexibility and simultaneously high impact strength. Free of toxic and allergenic substances, DD Bio Splint FLEX is ideal for patients with intolerances. Using CAD/CAM technology, you will achieve a perfect fit with no re-machining.

Advantages:

- High flexibility with high impact strength at the same time
- No risk of fracture – rail breaks are almost impossible
- High chemical resistance (IPA, med. disinfectants, oncological drugs)
- Improved patient comfort

Polyethylenterephthalat-Glycol (PET-G)

Indication: Flexible splints, therapeutic splints, bite regulators, drilling templates (Indicated for short-term use in the oral cavity)

## JUVORA™ Dental Disc

Highly biocompatible and high meshed, pure PEEK material based on polyether ether cetone.

- Ideal for nearly all fixed and removable restorations
- Usable in all open milling systems
- Dentincoloured – aesthetic alternative to NEM
- no discoloration and shades of the gingiva
- Veneer bonding with conventional composite materials
- ideal for allergy patients



## Splint Memory

An adaptable, intelligent and durable blank for maximum wearing comfort.

Splint Memory compensates for inaccuracies with its patented 'thermemory' effect. The material becomes flexible at body temperature and thus adapts optimally to the tooth surface.

Advantages:

- exceptional wearing comfort
- unique flexibility
- self-adjusting
- no yellowing
- enduring
- highest biocompatibility
- ,snap on' splints available



## Poly BioStar ML

Poly BioStar ML blanks consist of multilayer acrylic polymer based on polymethyl methacrylate (PMMA) without toxic or allergenic materials (according to ISO 10993-5).

Material benefits:

- 5 layers polymerized – very natural aesthetic effect biocompatible – medical polymer material
- industrially polymerised – low residual monomer content
- high fracture resistance and continuous flexural load
- plaque resistant – low water absorption – dense structure
- good polishing properties and abrasion resistance
- available in 6 colours (A1, A2, A3, A3,5, B3, C2) and 2 heights (16 & 20 mm)



Productname		REF H 14 mm	REF H 15 mm	REF H 16 mm	REF H 18 mm	REF H 20 mm	REF H 22 mm	REF H 25 mm	REF H 30 mm
Hinriplast® BioStar	ivory	-	-	-	-	-	-	550044	550041
Wax BioStar		550028	-	550029	550030	-	-	550031	-
HinriPart® BioStar		-	-	550080	550081	550082	-	550083	550084
PMMA BioStar transparent	transparent	550050	-	-	550051	-	-	550060	550061
PMMA BioStar blue	blue	550054	-	-	550055	550056	-	550057	-
PMMA BioStar ivory	ivory	550058	-	-	550059	-	-	550062	-
Splint Plus BioStar	transparent	-	650125	-	-	650126	-	-	-
Splint PMMA BioStar	transparent	-	650115	-	-	650116	-	650117	-
DD BioSplint Flex	transparent	-	-	-	-	455492	-	-	-
Splint Memory	transparent	-	-	650127	-	650128	-	650129	-
Poly BioStar ML	A1	-	-	750220	-	750221	-	-	-
Poly BioStar ML	A2	-	-	750222	-	750223	-	-	-
Poly BioStar ML	A3	-	-	750224	-	750225	-	-	-
Poly BioStar ML	A3,5	-	-	750226	-	750227	-	-	-
Poly BioStar ML	B3	-	-	750228	-	750229	-	-	-
Poly BioStar ML	C2	-	-	750230	-	750231	-	-	-
JUVORA™ Natural Dental Disc	natur	-	-	650130	650135	650131	650134	650132	650133
JUVORA™ Oyster White Dental Disc	oyster white	-	-	650143	650144	650145	-	650147	650148





## Zirkon BioStar

Zirkon BioStar are dental blanks made of yttrium stabilized, pre-sintered zirconium dioxide for the production of crowns and bridges. Zirkon BioStar offers an absolutely homogenous structure through a specially developed production process. The blanks are optimized for rapid milling strategies and provide excellent edge stability and green body breaking strength during processing. The balanced composition and fine grain structure ensure excellent technical properties.

Colour: white

Ø 98,5 mm with shoulder

- highest flexural strength
- high aging resistance
- homogenous density
- excellent fitting
- very good colouring results

3Y-TZP-A	1.300 MPa	35% Transluzenz
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## Zirkon BioStar Colour

Already persistent coloured (monochrome) zirconium dioxide in the pre-sintered stage, manufactured according to the same production process as Zirkon BioStar. Available in 5 colors. Color: pre-colored.

Ø 98,5 mm with shoulder

- constant and homogenous colour quality.
- Saves a lot of time because there is no colouring and drying process anymore.
- Any post-processing will not result in any white areas.

Colour orientation compared to the VITA-Colour code:

500 => A1/A2      800 => A3/B3  
 1000 => C2/C3      1333 => A3,5/B4      2000 => A4

3Y-TZP-A	1.300 MPa	35% Transluzenz	5 Colours
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## Zirkon BioStar Ultra

Zirkon BioStar Ultra is a highly translucent zirconia with best hydrothermal stability and increased fracture protection factor. Zirkon BioStar Ultra combines high translucency and highest strength for the production of highly esthetic full monolithic restorations and is very easy to colorize. Colour: white.

Ø 98,5 mm with shoulder

- highly translucent material
- precise colour gradient for a natural look
- high edge stability & hydrothermal resistance
- very good colouring results

4Y-TZP	>1.250 MPa	45% Transluzenz	8 VITA® shades
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## Zirkon BioStar Ultra Colour

Zirkon BioStar Ultra are monochrome pre-colored and highly translucent milling blanks. The technical properties are identical to Zirkon BioStar Ultra

available in 4 colours (A1, A2, A3, A3,5)





## Zirkon BioStar Ultra Multilayer

Based on Zirkon BioStar Ultra, Zirkon BioStar Multilayer blanks offer a smooth shade gradation from cervical to incisal.

Zirkon BioStar Multilayer ingots are multilayer, pre-shaded and highly translucent blanks and offer a natural, flowing colour gradient in the enamel, dentin and cervical shade range. Approved for all dental constructions and bridges up to 14 units. Colour: multi-layer dyed.

**Ø 98,5 mm with shoulder**

Available in 16 shades (A1, A2, A3, A3,5, A4, B1, B2, B3, B4, C1, C2, C3, C4, D2, D3, D4), each in 3 heights (14 mm, 18 mm, 22 mm)

4Y-TZP

>1.250  
MPa

45%  
Transluzenz

16  
VITA® shades

1  
Bleach-Shades



## Zirkon BioStar HT Smile

Zirkon BioStar HT Smile is a highly translucent, biocompatible zirconium oxide (type II, class 5) for maximum three-unit bridges in the anterior and posterior region with reduced flexural strength of > 750 MPa. Colour: white.

**Ø 98,5 mm with shoulder**

- translucent like lithium disilicate
- especially suitable for the anterior region
- for single crowns, inlays, onlays, veneers
- max. 3 unit bridges (fully anatomical or reduced)
- very good ageing resistance

5Y-TZP

>750  
MPa

49%  
Transluzenz



## Zirkon BioStar HT Smile Colour

Zirkon BioStar HT Smile Colour are monochrome precoloured and highly translucent milling blanks. The technical properties are identical with Zirkon BioStar HT Smile, white. Colour: pre-coloured.

**Ø 98,5 mm with shoulder**

Available in 4 colours  
(A1, A2, A3, A3,5)

5Y-TZP

>800  
MPa

8  
VITA® shades

## Zirkon BioStar HT Smile Multilayer

Zirkon BioStar HT Smile Multilayer is a multilayer pre-coloured, highly translucent zirconia and offers a natural, flowing colour gradient in the enamel, dentin and cervical shade range. The indication for up to 3-unit frameworks allows a wide range of applications.

- transparent like lithium disilicate
- > 800 MPa (lithium disilicate only > 300-380 MPa)
- for single crowns, inlays, onlays, veneers
- max. 3-unit bridges (fully anatomical or reduced)

**Ø 98,5 mm with shoulder**

Available in 16 shades (A1, A2, A3, A3,5, A4, B1, B2, B3, B4, C1, C2, C3, C4, D2, D3, D4), each in 3 heights (14 mm, 18 mm, 22 mm)

5Y-TZP

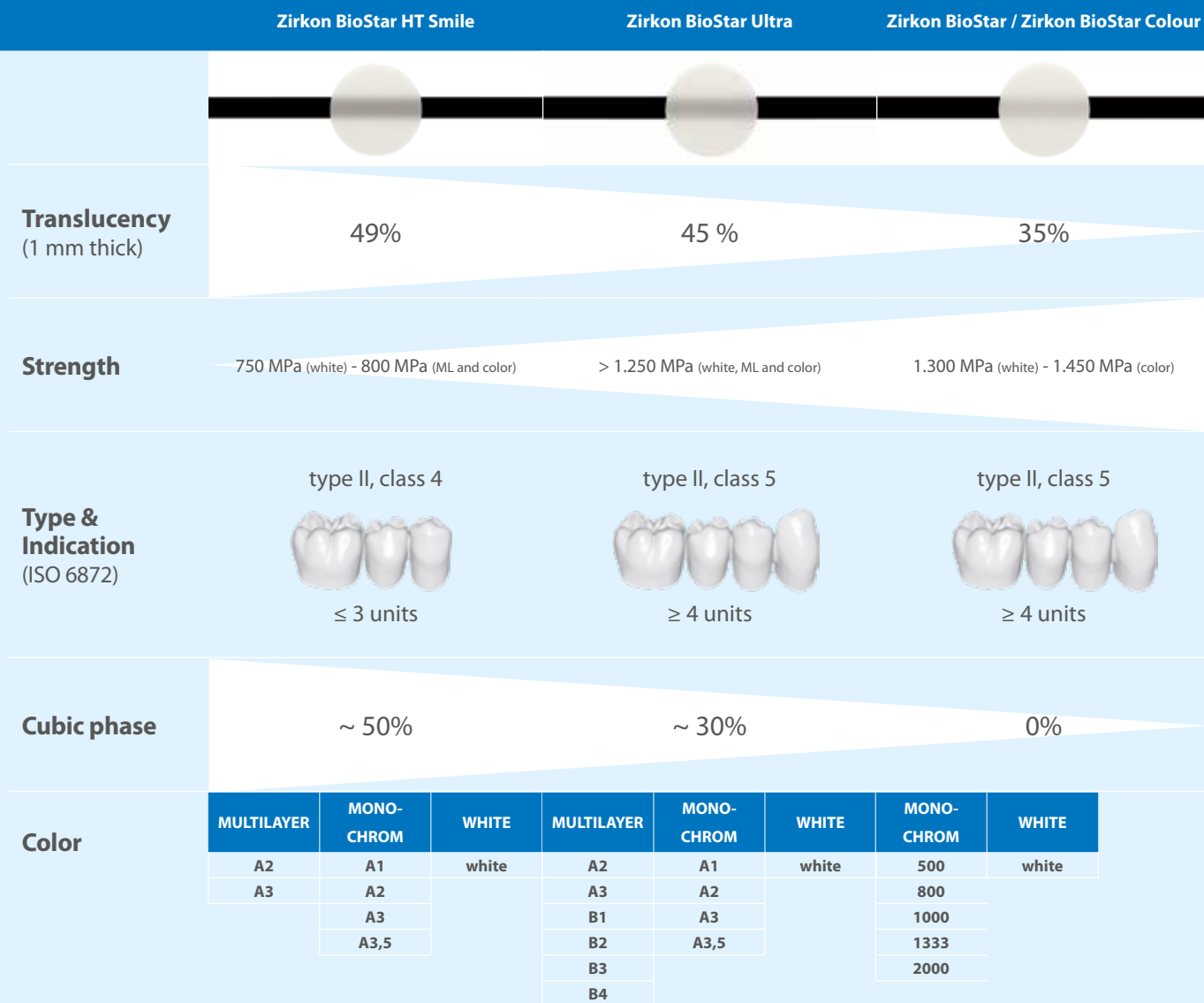
>800  
MPa

16  
VITA® shades

1  
Bleach-Shades



## Spezifikationen



## Format: Disc, Ø 98,5 mm +/- 1mm with shoulder (for open milling systems)

Product	Color	REF H 10 mm	REF H 12 mm	REF H 14 mm	REF H 16 mm	REF H 18 mm	REF H 20 mm	REF H 22 mm	REF H 25 mm
<b>Zirkon BioStar</b>	white opaque	252001	252002	252003	252004	252005	252006	-	252008
<b>Zirkon BioStar Colour</b>	500	-	252052	252053	252054	252055	252056	-	252058
	800	-	252062	252063	252064	252065	252066	-	252068
	1000	-	-	252103	252104	252105	252106	-	252108
	1333	-	-	252113	252114	252115	252116	-	-
	2000	-	-	252123	252124	252125	252126	-	-
<b>Zirkon BioStar Ultra</b>	white high translucent	-	252236	252237	252238	252239	252240	-	252241
	A1	-	252242	252243	252244	252245	252246	-	252247
	A2	-	252248	252249	252250	252251	252252	-	252253
	A3	-	252254	252255	252256	252257	252258	-	252259
	A3.5	-	252260	252261	252262	252263	252264	-	252298
<b>Zirkon BioStar Ultra Multilayer</b>	Bleach	-	-	256234	-	256235	-	256236	-
	A1	-	-	256003	-	256004	-	256005	-
	A2	-	-	252282	-	252283	-	252284	-
	A3	-	-	252285	-	252286	-	252287	-
	A3,5	-	-	256006	-	256007	-	256008	-
	A4	-	-	256009	-	256010	-	256011	-
	B1	-	-	252288	-	252289	-	252290	-
	B2	-	-	252291	-	252292	-	252293	-
	B3	-	-	252294	-	252295	-	252296	-
	B4	-	-	256012	-	252297	-	256013	-
	C1	-	-	256014	-	256015	-	256016	-
	C2	-	-	256017	-	256018	-	256019	-
	C3	-	-	256020	-	256021	-	256022	-
	C4	-	-	256023	-	256024	-	256025	-
	D2	-	-	256026	-	256027	-	256028	-
	D3	-	-	256031	-	256032	-	256033	-
D4	-	-	256034	-	256035	-	256036	-	
<b>Zirkon BioStar HT Smile</b>	white high translucent	-	252712	252713	252714	252715	252716	-	252718
<b>Zirkon BioStar HT Smile Colour</b>	A1	-	-	252723	-	252725	-	-	-
	A2	-	-	252733	-	252735	-	-	-
	A3	-	-	252743	-	252745	-	-	-
	A3.5	-	-	252753	-	252755	-	-	-
<b>Zirkon BioStar HT Smile Multilayer</b>	Bleach	-	-	256237	-	256238	-	256239	-
	A1	-	-	252719	-	252720	-	252721	-
	A2	-	-	252700	-	252701	-	252702	-
	A3	-	-	252703	-	252704	-	252705	-
	A3,5	-	-	252706	-	252707	-	252708	-
	A4	-	-	252709	-	252710	-	252711	-
	B1	-	-	256201	-	256202	-	256203	-
	B2	-	-	256204	-	256205	-	256206	-
	B3	-	-	256207	-	256208	-	256209	-
	B4	-	-	256210	-	256211	-	256212	-
	C1	-	-	256213	-	256214	-	256215	-
	C2	-	-	256216	-	256217	-	256218	-
	C3	-	-	256219	-	256220	-	256221	-
	C4	-	-	256222	-	256223	-	256224	-
	D2	-	-	256225	-	256226	-	256227	-
	D3	-	-	256228	-	256229	-	256230	-
D4	-	-	256231	-	256232	-	256233	-	

## DD*BasicShade*



### DD Basic Shade

During the development, special attention was paid to the quick and easy reproduction of tooth shades. DD Basic Shade colouring liquids offer an ideal basis for individualising monolithic as well as veneering work. When an all-ceramic alternative to non-precious materials is desired, efficient fabrication in the laboratory is crucial. The DD Basic Shade shades can be used for all zirconia variants. The „one for all“ shade system that adapts to your daily laboratory routine and not the other way around.

## DD*ProShade***Z**



### DD Pro Shade Z

The “Z variants” are optimized for the individual painting technique (stain & glaze), minimal coating (cut back) or as a framework shade for full veneering or the combination of the techniques in one job.

## DD*ProShade***C**



### DD Pro Shade C

The “C variants” are optimized for the high level of translucency of Zirkon BioStar HT Smile. Monolithic full ceramic is possible with just glazing. A high aesthetic level and efficient work are combined into one.

## DD*ArtElements*



### DD Art Elements

Universally applicable with all DD dentine liquids and with all Zirkon BioStar types.

Colour accord. VITA®	DD Basic Shade		DD Pro Shade C		DD Pro Shade Z	
	REF 30 ml	REF 100 ml	REF 30 ml	REF 100 ml	REF 30 ml	REF 100 ml
0M1	455300	455301	455350	455351	455400	455401
0M2	455302	455303	455352	455353	455402	455403
0M3	455304	455305	455354	455355	455404	455405
A1	455306	455307	455356	455357	455406	455407
A2	455308	455309	455358	455359	455408	455409
A3	455310	455311	455360	455361	455410	455411
A3,5	455312	455313	455362	455363	455412	455413
A4	455314	455315	455364	455365	455414	455415
B1	455316	455317	455366	455367	455416	455417
B2	455318	455319	455368	455369	455418	455419
B3	455320	455321	455370	455371	455420	455421
B4	455322	455323	455372	455373	455422	455423
C1	455324	455325	455374	455375	455424	455425
C2	455326	455327	455376	455377	455426	455427
C3	455328	455329	455378	455379	455428	455429
C4	455330	455331	455380	455381	455430	455431
D2	455332	455333	455382	455383	455432	455433
D3	455334	455335	455384	455385	455434	455435
D4	455336	455337	455386	455387	455436	455437

## DD Art Elements

DD Art Elements colouring liquid SA1	15 ml bottle	455450
DD Art Elements colouring liquid SA2	15 ml bottle	455451
DD Art Elements colouring liquid SC1	15 ml bottle	455452
DD Art Elements colouring liquid SC2	15 ml bottle	455453
DD Art Elements colouring liquid SO	15 ml bottle	455454
DD Art Elements colouring liquid SO Bright	15 ml bottle	455455
DD Art Elements colouring liquid light pink	30 ml bottle	455470
DD Art Elements colouring liquid purple	30 ml bottle	455471
DD Art Elements colouring liquid yellow	30 ml bottle	455472
DD Art Elements colouring liquid orange	30 ml bottle	455473
DD Art Elements colouring liquid light brown	30 ml bottle	455474
DD Art Elements colouring liquid blue	30 ml bottle	455476
DD Art Elements colouring liquid light grey	30 ml bottle	455477
DD Art Elements colouring liquid dark grey	30 ml bottle	455478
DD Art Elements colouring liquid graphit	30 ml bottle	455479
DD Art Elements Vario-Liquid	30 ml bottle	455490
DD Art Elements Set LAE001, 10x effect colours 30 ml	10 x 30 ml	455499



## HinriScan-Wax

Scannable modelling wax

Used in blocking out cavities and closing saw cuts prior to scanning. For all CAD-CAM systems (white light and laser scan). Compatible with CAM-Stone N, as no additional spray/powder is needed when using HinriScan Wax. For optimum scan and fit.

**ivory**

HinriScan-Wax

60 g can

REF 720010



## HinriScan varnish **ivory**

Scannable non-reflecting varnish for all dental gypsum

Anti-reflex liquid for all CAD-CAM systems. Smooths surfaces to be scanned. For extra-oral laboratory use only. Laser-opaque, washes off. Use HinriScan thinner for thinning suitable for all dental gypsum.

HinriScan varnish

20 ml bottle with brush

REF 720001

HinriScan thinner

20 ml bottle

REF 720002



## HinriScan-Spray Plus

- Extra-fine atomiser for ultra fine spray film, ensures finest edge presentation
- homogeneous spray condition with very smooth surfaces
- easy to clean with water steam
- suitable for all CAD-CAM systems
- for the extraoral application (gypsum model)

HinriScan-Spray Plus

200 ml can

REF 720023



## HinriScan-Spray Basic

- homogeneous spray condition with very smooth surfaces
- easy to clean with water steam
- suitable for all CAD-CAM systems
- for the extraoral application (gypsum model)
- easy to clean with water steam
- very good price-performance ratio

HinriScan-Spray Basic

400 ml can

REF 720022

**NEW**



## Scantist 3D Vanishing

Dental Scan Spray

- evaporating, extraoral 3D scan spray
- no contamination of object and environment
- no subsequent cleaning necessary
- free of titanium oxide (TiO<sub>2</sub>) and other pigments
- high time and cost saving

Scantist 3D Vanishing

200 ml Sprühflasche

REF 720024



## HTS-2/METAL GLOW-120+

New innovative technologies require accompanying new approaches in order to be successful.

Our wealth of experience and deep knowledge of heat treatment and sintering technology have made it possible to create a suitable solution for the challenges in the field of metal 3D printing.

With the HTS-2/METAL GLOW-120+ you will find the right tempering furnace, which can be used both with and without a protective gas atmosphere, depending on the requirements. The control used here with 30 program slots, 9 holding levels and 40° increase/min. With the data interface that is also available, it fulfills all of today's known requirements for the safe handling of your printed products.

MIHM-VOGT proves once again that experience creates innovative products that give your laboratory access to long-lasting and future-oriented technology.

- ✓ 30 SINGLE CROWNS or 1 SINTERING DISC
- ✓ Molybdenum-disilicide heating elements PRO
- ✓ Maximum temperature 1400°C
- ✓ Program contro
- ✓ Shielding-gas supply manually adjustable
- ✓ Thermocouple PtRh-Pt, Typ S
- ✓ Timer function
- ✓ RS-232 interface

HTS-2/Metal Glow-120+

REF 642246



## MV-R

The optimal combination of proven technology and future-oriented innovations

Due to significant further development of our heating technology, we have achieved a heating rate of up to 200°C/min and can thus meet our customers' demands for shorter sintering times. On 200 program positions any sintering program can be displayed, each with 10 possible programming levels.

The clearly designed touch display guides you through the individual menu levels in simple steps and enables fast programming of the individual material parameters.

The USB data interface allows quick installation of device updates and readout of error analyses.

These and other future-oriented innovations - combined with the proven quality of MIHM-VOGT - make the mv-r a strong partner for every requirement in your dental practice or laboratory.

MV-R

REF 642245





TABEO-1/M/ZIRKON-100  
 TABEO-2/M/ZIRKON-120  
 TABEO-1/S/ZIRKON-100  
 TABEO-2/S/ZIRKON-120

**i** S. 84/85  
 Details



HTS-2/M/Zirkon-120

## TABEO

The new generation of the model series TABEO / ZIRKON has been designed in close cooperation with dental laboratories and dealers of our worldwide distribution network. The result is a device concept which fully complies with most varied requirements not only in terms of economic efficiency and reliability, but especially with regard to characteristics of modern materials.

The SiC versions are equipped with 4 high-quality heating elements made of silicon carbide, allowing a sintering temperature of up to 1550°C and preventing discoloration of the restorations caused by molybdenum. Pre-set service programs increase the life span of the heating elements and the heating chamber in addition.

The MoSi<sub>2</sub> versions are equipped with 4 high-quality molybdenum-disilicide heating elements of the latest generation allowing a sintering temperature of up to 1650°C. The regular execution of pre-set service programs can prevent possible discoloration of restorations and increase the life span of the heating elements and the heating chamber.

TABEO-1/M/ZIRKON-100	REF 642240
TABEO-2/M/ZIRKON-120	REF 642242
TABEO-1/S/ZIRKON-100	REF 642241
TABEO-2/S/ZIRKON-120	REF 642243

## HTS

The redesigned HTS-2 model series combines the well-known features of the models HT-S and HT-S SPEED.

The HTS-2 offers you not only the fusion of the properties of old models, but also a larger sintering capacity of up to 80 individual crowns. The heating system with four highperformance molybdenum disilicide heating elements (MoSi<sub>2</sub>) means that you can now choose whether to use the conventional long-term sintering or the SPEED-sintering with a heat-up rate up to 99°C/minute.

The simple, practical handling of the HT-series program control was also incorporated here with all its familiar functions; program display on a four-line LCD-display, timer function for sintering overnight or also using drying programs for wet-milled restorations. There are three service programs for servicing the heating chamber and the heating system.

## HT

HT-2 - even more efficient due to a larger capacity

Due to the size of the heating chamber, it is now possible to process three sintering trays  $\varnothing = 120\text{mm}$  during the conventional long-term sintering. However, the heating system with six high-quality molybdenum disilicide heating elements ( $\text{MoSi}_2$ ) enable you to carry out processes within 76 minutes in a SPEED-sintering process. These represent optimal prerequisites for your dental laboratory or milling centre.

As with all our model variants, the HT-2 is operated with a simple, self-explanatory program control. 4-line LCD-display, timer function for overnight sintering, drying programs for wet-milled restorations. There are three service programs for servicing the heating chamber and the heating system.



HT-2/M/ZIRKON-120

HT-2/M/Zirkon-120

REF 642094



**German high-tech when it comes to preheating and sintering furnaces!**

## METAL

Safe and fit for the future

There are three models available to select from for sintering non-precious metal (NEM). All of these models work under inert gas atmosphere to protect the nonprecious metal from scaling.

Choose from two long-lasting non-precious metal sintering systems. For the metal system 100, the shielding gas supply is system-controlled. In addition to some preset material parameters, free programs are available. This guarantees safety. For the metal system 120, on the other hand, the shielding-gas supply can be adjusted manually.

In addition to a high level of safety the customer can be sure to have the freedom to adapt the system to new kinds of metal material in the future.



TABEO-2/M/METAL-120  
HTS-1/M/METAL-100  
HTS-2/M/METAL-120

TABEO-2/M/METAL-120

REF 642244

HTS-1/M/METAL-100

REF 642197

HTS-2/M/METAL-120

REF 642198

# Overview sintering furnaces



	REF 642241	REF 642240	REF 642243	REF 642242	REF 642244
	Zirkon	Zirkon	Zirkon	Zirkon	Metal
Heating-chamber height (mm)	42		92		
Sintering tray	1 x Ø 100 mm / 30 mm		3 x Ø 120 mm / 30 mm		1 x Ø 120 mm
max. temperature	1550 °C	1650 °C	1550 °C	1650 °C	1400 °C
Heating elements	4 x SiC	4 x MoSi	4 x SiC	4 x MoSi	4 x MoSi
max. programmable heating rate (K/min)	25	25	25	25	40
shortest heating periode to 1500 °C (min)	63	61	58	72	
shortest cooling periode to 300 °C (min)	124	148	143	145	
Program control					
7-segment LED	✓	✓	✓	✓	✓
4-lines LCD	✗	✗	✗	✗	✗
Number of process steps	4	4	4	4	4
Fixed programs	✗	✗	✗	✗	4
Program numbers free	9	9	9	9	5
Thermocouple PtRh-Pt 140 mm, Typ S	✓	✓	✓	✓	✓
Service programs					
A-Temperature control	✓	✓	✓	✓	
C-Purge heating chamber	✓	✓	✓	✓	
E-Regenerate heating elem.	✗	✓	✗	✓	
Buffer. of emerg.-cooling bat					
Port RS 232	✓	✓	✓	✓	✓
Door lift function	✗	✗	✗	✗	✗
Shielding-gas supply	✗	✗	✗	✗	✓
Over-night programming	✓	✓	✓	✓	✓
max. Leistung in W	1700	1500	2000	1800	1600
Power max.	200-240 V   50/60 Hz   Socket separately fused (FI)				
Dimensions	400 x 400 x 600 mm		480 x 460 x 680 mm		530 x 460 x 680 mm
Weight in kg	60	55	85	80	80

[1\*] only in connection with test kit



# Overview sintering furnaces



HTS-2  
M/ZIRKON-120



HT-2  
M/ZIRKON-120



HTS-2  
M/METAL-120



MV-R



HTS-2  
METAL Glow-120+

REF 642194		REF 246094		REF 642198	REF 642245	REF 642246
Zirkon		Zirkon		Metal	Metal	Metal
72		102		67	75	100
2 x Ø 120 mm / 30 mm		3 x Ø 120 mm / 30 mm		1 x Ø 120 mm	2 x Ø 100 / 30 mm	
1650 °C				1400 °C	1650 °C	1400 °C
4 x MoSi		6 x MoSi		4 x MoSi	4 x MoSi	4 x MoSi
Classic 30	Speed 99	Classic 30	Speed 99	40		
55	25	49	27	8 „SPEED Motion“		
47	18	143	19			
✘		✘		✘	7" Touch Display	
✔		✔		✔		
4		4		4	10	9
✘		✘		4		
30		30		26	200	30
✔		✔		✔	✔	✔
✔		✔				
✔		✔				
✔		✔				
✘		✘		✘		
✔		✔		✔		
✔		✔		✔		
✘		✘		✔		
✔		✔		✔		
3200		3800		2000	3500	3000
200-240 V   50/60 Hz   Socket separately fused (FI)						
390 x 500 x 790 mm		500 x 560 x 820 mm		390 x 500 x 790 mm	390 x 540 x 780 mm	390 x 540 x /800 mm
60		74		56	65	63





## 2 CREATE

Metal 3D Printer for dental applications and prototypes is an accessible way to rapid manufacturing metal parts and prototypes with complex geometries from a variety of alloys..

### ✓ Simply

- intuitive and convincing software solutions
- simple and easy to use for everyone

### ✓ Robust

- robust and reliable system

### ✓ Open

- the user decides how and with which powder to print.

### ✓ Affordable

- cheap, reliable, flexible.
- 3D printing accessible to everyone

### ✓ Fast Material Change

- change your metal powder within 20 minutes

### ✓ Plug & Play

- ready to start printing titanium & other alloys

### ✓ Instant printing

- ready to print in below 5 minutes (from 21% oxygen to below 1%)

### Technische Daten

Build volume	Ø 100 x 100 mm
Reservoir volume	Ø 110 mm x 200 mm
Coater	Rotation precision coater
Inert gas	Nitrogen / Argon
Layer thickness	20 - 100 µm
Dimensions	720 x 860 x 1790 mm
Weight	450 kg

### Optic

Laser source / power	Yb fiberlaser / 250W
Wavelength	1070 nm
Lens	Precision F-Theta lens
Scan speed	up to 10 m/s
Spot size	min. 40 µm

### Electronic

Power	230V, 10A 50/60Hz, 2.3kW
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## 2 BUILD (Software für 2 CREATE)

2BUILD Software is the newest and most innovated tool for 3D Printing data preparation, and the solution to all your 3D printing needs. The strategy editor allows you to choose the right strategy for your powder from a large library of process parameters.

### ✔ Nesting

- High-speed nesting saves valuable post-processing time

### ✔ Labeling

- Labeling for easy allocation of the components

### ✔ Support Generation

- Automatic generation of supports

### ✔ Integrated analysis tool

- Develop new parameters quickly
- Automated, statistical design of experiments
- Integrated density evaluation based on image analysis
- Automated calculation of the optimal printing parameters

### ✔ Production Manager

- Increase your productivity and optimize your work processes

### ✔ 2Connect

- Control and monitor your AM-ECO system via one platform

### ✔ Support Editor

In 3D printing, the supports fulfill several important functions.

They attach the component to the surface of the build platform and thus prevent thermal deformation. In addition, the supports ensure heat transport during printing. The heat generated by the melting of the powder must be dissipated via the supports, since the non-melted powder is a very good thermal insulator. In the support editor, all properties of the supports can be freely selected. In addition to the thickness and density of the supports, the bond to the component can also be adjusted. An intelligent integrated algorithm adjusts the number of supports so that only as many supports are generated as are necessary for reliable printing.

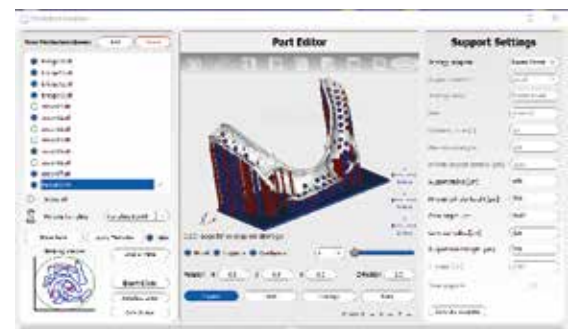
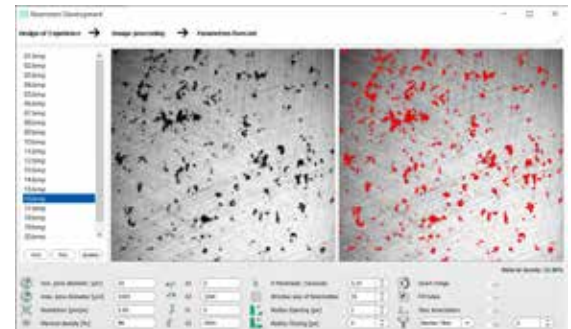
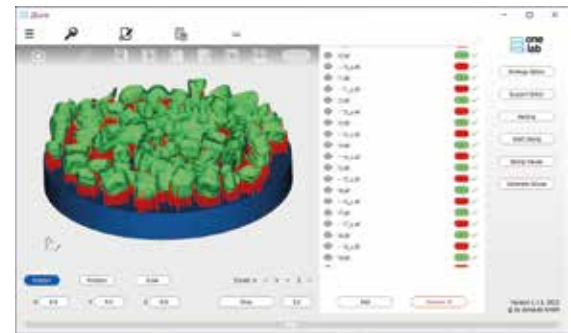
This saves time and money during postprocessing.

### ✔ Strategy Editor

A variety of 3D printing strategies can be chosen in the strategy editor. The software allows full control over the exposure process. Various hatching, contour and finishing strategies settings are available. Strategies can be created and managed by the user as desired. The intuitive concept of individual color coding allows the new strategy to be applied to the model with a few clicks. Clear, simple and intuitive.

Besides line hatching, the editor also offers the possibility for island or stripe exposure. The contour drive can also be defined as desired.

Newly created strategies are synchronized directly in the cloud and can be accessed from different devices.





## HinriPrint Wash

### Simple and clean

The used liquid can be emptied very easily by removing the inner tank. The airtight lid prevents unpleasant odors from escaping and thus improves the working environment.

### Height-adjustable drainer

Thanks to the integrated height-adjustable drip device, the operator can remove the components to be cleaned easily and cleanly.

### A program for every object

There are 3 washing programs available, which can be selected from the menu: Standard and intensive cleaning or the wash cycle for sensitive parts. You can clean very complex objects precisely. Gentle cleaning is suitable for sensitive parts in order not to damage the 3D prints.

- ✓ Dimensions: 320 x 240 x 330 mm (W x H x D)
- ✓ Inner space: 145 x 145 x 105 mm (W x H x D)

HinriPrint Wash

REF 644700

## Otoflash G171 - Flash-curing device for lightcuring resins

The device can be used for the photo-polymerisation of all light-curable materials (where the curing takes place) at a wavelength range of 280-580 nm. Ideal for end curing of 3D printed dental resins. With its technical configuration, the Otoflash G171 enables short curing times. Compared to other methods this achieves a substantially better curing of the 3D printed materials, resulting in very good physical characteristics and reduced residual monomer content (inhibition layer).

In combination with our Otoflash G171 and our printing material Ortho Print UV (medical class IIa) you can produce certified occlusal splints and drilling templates.

- ✓ Dimensions of polymerisation chambers: 120 x 120 x 50 mm
- ✓ Trays for polymerization material with UVB blocker
- ✓ Power input: 250 W
- ✓ Number of light sources: 2 flashbulbs à 100 W
- ✓ Flash frequency: 10 flashes per second
- ✓ deliverable with a protective gas appliance for nitrogen (N<sub>2</sub>)
- ✓ Digital timer: adjustable from 1 to 9.999 flashes
- ✓ Dimensions: 310 x 310 x 140 mm, weight: 6 kg

Otoflash G171

REF 644900

## HinriPrint model II

Especially developed for new generations of printers with 385 nm: Light-curing resin for the manufacturing of dental models for orthodontics and prosthetics. Faster printing process due to higher output, still with the same precision. Also suitable for printing expert and show models.

HinriPrint model II

1.000 g, beige

REF 644300



## HinriPrint setup

Light-curing resin for the manufacturing of orthodontic set-up models. The material is above all characterised by its increased building speed. The set-up models are very well suitable for the thermoforming technique.

HinriPrint setup

1.000 g

REF 644301



## HinriPrint cast

Light-curing resin for the production of burn-out molded parts for the dental casting technique. The material is highly compatible: we recommend the Hinrivest RP investment material, which is specialized in 3D plastics.

HinriPrint cast

1.000 g

REF 644303



## HinriPrint gingiva

Light-curing resin for the manufacturing of dental gingiva masks. Permanently soft and flexible. Perfectly combinable with working models made of HinriPrint model II / LCD.

HinriPrint gingiva

1.000 g

REF 644302



## HinriPrint model LCD

HinriPrint model LCD is a light-curing plastic for the production of dental working models using 385 nm / 405 nm LED-based stereolithography processes. For post-curing, we recommend the Otoflash G171, which is optimized to the production process.

HinriPrint model LCD

1.000g, beige

REF 644307



## HinriPrint tray

Biocompatible light-curing resin for the manufacturing of dental impression trays. High reactivity at low viscosity. The finished impression trays have a homogeneous surface, which significantly reduces manual reworking.

HinriPrint tray

1.000 g

REF 644304





## FotoDent® guide

Light-curing resin for the manufacturing of dental drill guides. Drill guides made from FotoDent® guide are dimensionally stable and biocompatible.

FotoDent®guide	1.000 g	REF 644305
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## FotoDent® denture

Light-curing resin for the production of denture bases. The material provides for accurate results with an outstanding dimensional stability. FotoDent® denture is MMA-free and stable of colour.

FotoDent® denture	1.000 g, pink-transparent	REF 644330
FotoDent® denture	1.000 g, pink-opaque	REF 644331



## FREEPRINT® cast

Light-curing resin for the 3D printing of cast objects using precision casting technology.

Burns without residue in the mould, even with large volumes. Embedding is performed with phosphate-bonded standard embedding compound. Precise reproduction of the finest surface structures. Low-viscosity approach for low material consumption and more rapid cleaning. High process reliability and precision in construction. Colour: red

FREEPRINT® cast	1.000 g	REF 644211
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## FREEPRINT® model

Light-curing resin for the 3D printing of dental models.

Precise reproduction of details, maximum surface hardness and shape stability. Maximum precision in construction, feel and stability meet the high demands of model production. Opaque colour adjustment for the optical detection of surface structure, preparation margins, etc. Colours: ivory, grey, sand

FREEPRINT® model	1.000 g, ivory	REF 644220
FREEPRINT® model	1.000 g, sand	REF 644221
FREEPRINT® model	1.000 g, grey	REF 644222



## FREEPRINT® temp

Light-curing, biocompatible resin for the 3D printing of temporary crowns & bridges.

Exceptional breaking and flexural resistance, high abrasion resistance. Natural tooth esthetics, brilliant, translucent colours. Easy surface processing and polishing, can be characterized individually with the smartrepair® system or composites. Low viscosity for low material consumption and more rapid cleaning. Resistant to oral conditions, no odour or taste irritations, medical device Class IIa, colours: A1, A2, A3

FREEPRINT® temp	1.000 g, A1	REF 644260
FREEPRINT® temp	1.000 g, A2	REF 644261
FREEPRINT® temp	1.000 g, A3	REF 644262

## FREEPRINT® tray

Light-curing, biocompatible resin for the 3D printing of individual impression and functional trays and base resin plates.

Low viscosity for low material consumption and more rapid cleaning. Maximum construction speed, very high dimensional stability and torsional rigidity. No mechanical reprocessing of the surface necessary. Suitable for all impression materials, neutral odour and taste, MMA-free. Medical device Class I, colour: green

FREEPRINT® tray

1.000 g

REF 644266



## FREEPRINT® ortho

Light-curing, biocompatible resin for the 3D printing of base parts for orthodontic apparatuses, drilling and X-ray templates, occlusal and fixation splints.

Benefits: maximum reliability of construction process, mechanical strength, easy to polish. Breaking strength, elasticity and influence of moisture following the orthodontic standard. Validated processes for sterilization in autoclaves. Adaptation of the occlusion field, easy fixation of orthodontic wire elements and auxiliary components with FREEFORM® fixgel. Resistant to oral conditions, neutral odour and taste. Medical device Class IIa, colour: clear-transparent

FREEPRINT® ortho

1.000 g

REF 644201



## FREEPRINT® model 2.0

Light-curing resin for the 3D printing of dental models.

Maximum surface hardness and shape stability provide an excellent mechanical strain. Faster workflow without drying process. Maximum precision in construction, feel and stability meet the high demands of model production. Optimum edge strength provides reliable models. Opaque colour adjustment for the optical detection of surface structure, preparation margins, etc. Colours: sand, light-grey, grey, caramel, white

FREEPRINT® model 2.0

1.000 g

REF 644223



## FREEPRINT® denture

Light-curing, biocompatible resin for the 3D printing of removable denture bases.

High process reliability thanks to high initial hardness following printing. Low viscosity for reduced material consumption and faster cleaning. Displays maximum mechanical flexural and tensile strength without becoming brittle. Colour stability, odorless and tasteless. MMA-free, medical device Class IIa. Colours: pink-transparent and pink.

FREEPRINT® denture

1.000 g

REF 644228



## FREEPRINT® gingiva

Light-curing resin for the 3D printing of flexible gingival masks for dental models.

For 3D reproduction of functional gingival model segments in a digital workflow in conjunction with FREEPRINT® model. Excellent elasticity and tear-resistance. Excellent dimensional stability, no shrinkage or aging, ductile even when stored over a long period. No annoying or unpleasant odors from fabricated gingival masks. Colour: gingiva

FREEPRINT® gingiva

1.000 g

REF 644267





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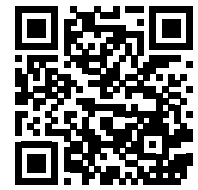
## Onlineshop

<https://www.hinrichs-dental-shop.de>



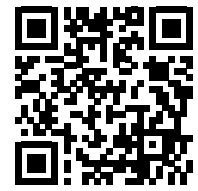
## Pricelist

<https://www.hinrichs-dental.de/preisliste>



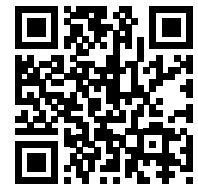
## Material safety data sheets

<https://www.hinrichs-dental-shop.de/sdb>



## Application Instructions

<https://www.hinrichs-dental-shop.de/gba>



## Terms and Conditions

<https://www.hinrichs-dental-shop.de/agb>





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