

Signum[®] Veneering Composites and Accessory Products
Freedom for your aesthetics.



Giving a hand to oral health.

Is it ceramic or natural tooth? It's **Signum**[®].

You will be amazed to see that a composite can rival the aesthetic results and durability of high performance ceramics? Signum can do just that, as microfine filler particles and a unique matrix formula work together to achieve aesthetic results comparable to nature. For long-lasting restorations and comfort!

Signum is a modular designed system made of universal and special veneering composites, colouring kits, tools and accessories resulting from Heraeus Kulzer research. Each component of the Signum system is highly developed and specialised for its own range of application. And each individual component has been perfectly matched for interaction with the other Signum components, respectively. Enjoy the security of perfect restorations!



Signum® is, when one thing perfectly fits another.

Regardless of how you like to work, the Signum range with its modular design will have a product to suit you.

Signum – For the love of perfection.

Signum cre-active

Stains for characterisation, e.g. for fissure contrast, white striation, and a whole lot more.



Signum matrix

Flowable consistency for thin sections in the margin or incisal area with light optic properties.



Signum composite
Signum composite flow
Metal-supported

Signum ceramis
Metal-free



Signum Zubehör

Bonding agent for all materials, polishing and finishing tools, polishing pastes, insulation, light curing units etc.

The **Signum**[®] – system for perfect aesthetics.

Variety of indications – Signum composite and Signum ceramis –
the two specialists in their field.

Signum composites are perfectly adapted for any indication,
whether metal-supported as a veneering (Signum composite)
or metal-free as an inlay or full crown (Signum ceramis).

Natural aesthetics – fascinating light optic just like natural teeth.

The unique Signum matrix system ensures optimised light
properties such as opalescence, transparency and fluores-
cence, which you can easily and specifically control in any
situation.

Plaqueresistant and colourstable –
Surface quality that will convince you.

Specially developed filler compositions ensure homogeneous
and dense veneer surfaces for reduced plaque affinity.

Shades can be reproduced very quickly – Easy to match to the VITA
Classical* Shade Guide.

The colours of Signum veneering composites are easy to
match with PALA artificial teeth and HeraCeram ceramics.



*VITA Classical is a registered trademark of VITA Zahnfabrik, Bad Säckingen.

To make your first steps in the world of Signum that little bit easier, there is a comprehensive 2-shade First Touch starter kit with instruction sheet and accessories available for each of our products.

Signum composite first touch

8-piece starter kit for getting an insight to different consistencies of composites – paste and flowable. Designed for metal-supported indications

- 2 x Signum composite dentine A3 – flowable and paste
- 1 x Signum composite dentine B3 – paste
- 1 x Signum composite enamel EM – paste
- 1 x Signum matrix opal incisal OS3 – flowable
- 1 x Signum matrix secondary dentine SD1
- 2 x Signum opaque F A3, B3
- + accessories

Product No.: 6604 4563



Signum flow first touch

8-piece starter kit with the new flow dentines and the chroma + components from the Signum matrix system. The kit is exclusively designed for pure flow processing.

- 2 x Signum composite flow dentine A2, A3
- 1 x Signum composite flow cervical CV1
- 1 x Signum matrix opal incisal OS2
- 2 x Signum matrix opal transpa OTA, OTY
- 2 x Signum opaque F A2, A3
- + accessories

Product No.: 6605 2771



Signum Ceramis first touch

8-piece Signum ceramis starter kit for the production of Inlays, Onlays or Full Crowns in shades A2 and A3.

- 2 x Signum ceramis dentine DA2, DA3
- 1 x Signum ceramis enamel EL
- 1 x Signum matrix OS2
- 2 x Signum ceramis effect ET4 (orange), ET5 (white)
- 2 x Signum cre-active T1
- + accessories

Product No.: 6604 5066



Signum® Composite – Signum® Matrix.

Freedom for aesthetics – the veneering system by Signum®.

Signum composite has been optimally developed for use on metal frames and in particular for veneering telescopic work. The expansion of the Signum system with flowable dentines opens up a whole range of new processing possibilities. Now you can work with paste or flowable products on their own or use them in combination. Yet another advantage is the possibility of creating individual shade nuances by mixing the flowable dentines or flow cervicals with other flowable components, e.g. those from the Signum matrix system.

Unique! Signum matrix.

Signum matrix is a flowable but nonetheless stable composite that achieves both natural abrasion resistance and outstanding opalescence, fluorescence and transparency results. Signum matrix can be combined with all Signum veneering materials – Signum composite, composite flow and Signum ceramis – and above all Signum matrix is a practical addition when it comes to the creation of lifelike and natural-looking restorations. Further advantages of the matrix system are the high aesthetic endresult and the identical names used with HeraCeram matrix.

Layering example with Signum matrix



Patient work bx MDT Jürgen Freitag, JF-Dental, Bad Homburg

Comparison between flexural strength and hardness			
Product	Flexural strength [MPa]	E-Module [MPa]	Martens-Flexural strength [MPa]
Signum composite*	99,3	4854	268
Signum composite flow**	130,0	6477	291
Signum matrix***	147,3	6640	308

* Measured on Signum composite DA3 (Charge 10501) according to DIN EN ISO 10477
 ** Measured on Signum composite flow DA3 (Charge 10021) according to DIN EN ISO 10477
 *** Measured on Signum matrix OS2 (Charge 10025) according to DIN EN ISO 10477

Signum Essentia Set

9-colour assortment (A1, A2, A3, A3,5, A4, B2, B3, C3, D3) with Dentine, Margin, Incisal and Opaquer pastes

Product No.: 6601 9673



Signum Matrix Set

In the Signum matrix set, you will once more find all the components you need for natural light effects, including Mamelon- and Secondary Dentine, Values, Opal Incisals and Opal transparent composites.

Product No.: 6601 9675



Signum essentia flow Set

6-colour assortment (A2, A3, A3.5, B3, C3, D3) with Cervical-, Dentine-, Opal Incisals and Opaquer pastes.

Product No.: 6604 9088



Advantages

- Simple processing concept.
- Fast reproduction of shades.
- Outstanding material properties.



Better restorations without metal.

Signum Ceramis Set

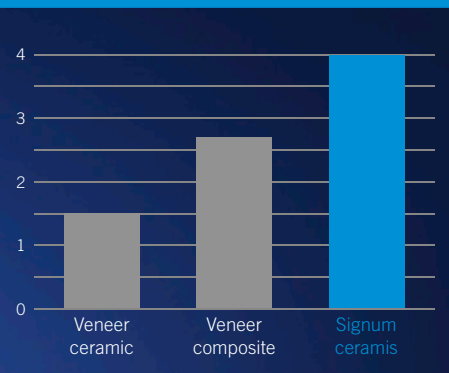
Signum ceramis is a high-tech product based on Heraeus Kulzer research: A composite with ideal impact strength and the brilliant shades of a natural tooth. With Signum ceramis, you can now manage metal-free restorations that you could previously only do with a special ceramic. For aesthetic and reliable restorations with an extra long life and that lack no framework.

8-colour assortment for the fabrication of metal-free restorations such as Inlays, Onlays or Full Crowns.

Product No.: 6602 2910

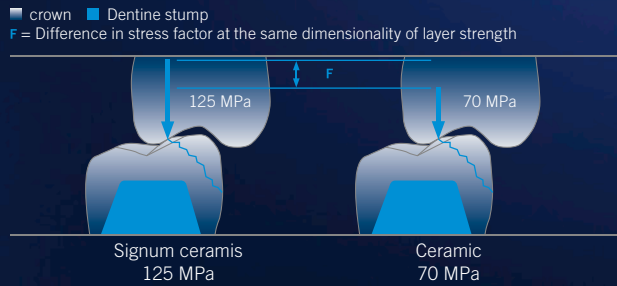


Impact strength (kJ/m²)



Bending strength

Effect of bending strength in the example of an early protrusion contact with the chewing force being influenced by the antagonists.



Advantages

- Extra-high E-Module.
- Extra long life.
- Precise shade matching.



The stains for individual requirements.

Signum cre-active set

Signum cre-active is the creative module for characterising and inlaying distinctive details like white striations, fissure contrast, enamel cracks and much more. The stain set comprises 8 different intensive stains and 2 transparent fluids for mixing and perfectly round off the Signum veneering system.

Naturally, it is 100% compatible with Signum composite, Signum ceramis and Signum matrix. Modifications of artificial teeth are also possible with Signum cre-active.

8 stains give you the creative freedom you want.

Product No.: 6603 3446



Custom characterisation for patients

Create white striations with the brush or give your fissures a certain contrast. The stains remain permanently abrasionresistant when you mix or cover with e.g. an OT1.

Advantages

- Simple application.
- Can be combined with Signum matrix.
- Can be mixed together.

And in combination with Signum connector.

- Suitable for artificial teeth.



Strong and secure bonding.

Signum bonding agents provide the best conditioning currently possible for every material. Each of the three Signum bonders is a specialist in its field of either dental alloys, zirconia or silicate ceramics.

Signum metal bond

Indications

Bonding agent for metal frameworks (all commonly used dental alloys) to get a safe and permanent bonding with veneering composite.

Product No.: 6603 3913

Advantages

- Intraoral and extraoral application.
- Very high shear bond strength.
- Compatible with the most commonly used veneering composites.
- Opaque 2nd component.



Signum zirconia Bond

Indications

- Bonding agent for zirconia to composite.
- For conditioning inner crown surfaces made from zirconia before permanent cementation with resin cements.
- Bonding between root pins, Maryland bridges and resin cement.

Product No.: 6603 8530

Advantages

- Intraoral and extraoral application.
- High bonding strength.
- Very thin layering thickness.
- Easy and efficient processing.



Signum ceramic bond

Indications

- For intraoral/extraoral repair with direct filler composite.
- For conditioning/silanisation of the adhesive surface before cementation with resin cement.
- Enlarge pontics with composite.

Product No.: 6603 9817

Advantages

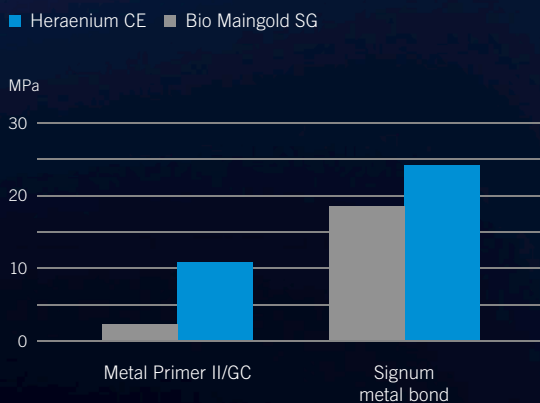
- Suitable for all silicate ceramics.
- Fast and safe processing.
- Intraoral and extraoral application.
- No polymerisation required.
- Very high bonding strength and long life.

(up to 30 MPa in accordance with DIN EN ISO 10477)



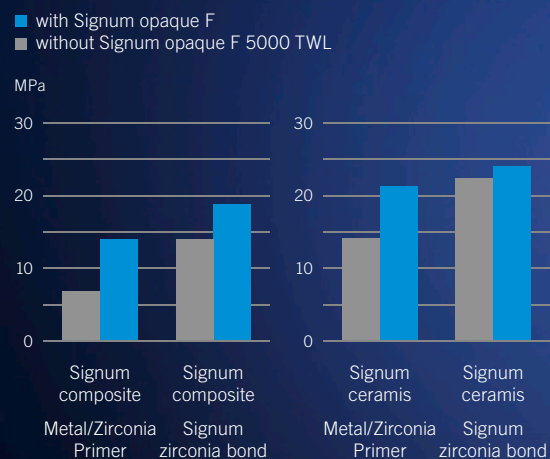
Studies about Metal Bond and Zirconia Bond

Comparison of the shear bond strength of various bonding systems*



(Layer build-up with 2 opaquer layers, 1 veneer layer with Signum composite dentine)

Test of shear bond strength** according to DIN EN ISO 10477



* Shear bond strength testing in accordance with DIN EN ISO 10477: 2004 Tübingen University/Prof. Geis-Gerstorf J

** Source: Jena University Hospital, Prosthetics and Materials Science Department, Prof. Küpper H, Dr. Göbel R, March 2008 (not published, documentaion available)

Signum insulating Pen (Set)

Dual-component isolation for separation of plaster or epoxide from Signum veneering composites

Signum insulating pen (set) 1 x 12ml each
Insulating pen I, Insulating pen II
Product No.: 6471 2597

Signum insulating pen (refills)
Insulating pen I, 1x12ml pen
Product No.: 6471 2595

Insulating pen II, 1x12ml pen
Product No.: 6471 2596

Advantages

- Signum insulating pen I closes micropores on the plaster surface.
- Signum insulating pen II creates a very thin liner that enables maximum fitting.



Signum insulating gel

Isolation of model materials from composites. Application before final polymerisation prevents a dispersion layer on the veneer surface.

Product No.: 6470 6307

Advantages

- Water soluble.
- Easy to use.
- Can be used for any model material.



Signum HP diamond

Signum HP diamond polishing paste, 15g. Diamond polishing paste with firm consistency and microfine diamond abrasives for a fast and durable high lustre of highly filled composites.

Product No.: 6604 5987

Advantages

- Fast and durable high lustre.
- Highly efficient.
- Produces absolutely smooth composite surfaces, i.e. roughness of $<0,1 \mu\text{m}$!



Signum HP Paste in a Stick

Polycrystalline paste in a stick for polishing composite materials, 10g.

Product No.: 6471 2537

Advantages

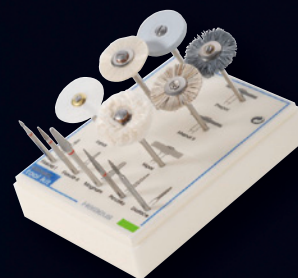
- Fast, permanent high lustre.
- Optimal packaging format.



Signum tool kit

Rotating special instruments for processing and polishing composite materials.

Product No.: 6601 5677



Polymerisation Devices

Heraeus Kulzer has over 30 years of experience in developing and manufacturing high-quality polymerisation devices for light-curing dental materials. We use this long experience to give our customers the best quality.

HiLite pre 2

Signum HiLite pre 2 provides LED light technology with modern design for rapid and professional pre-polymerisation* of flowable composites. The device can be used for a wide variety of indications in the fields of acrylic prosthetics and veneering.

* For final polymerisation, an additional device is required, e.g. Signum HiLite power.

Product No.: 6605 9751

Advantages

- Mobile or stationary use possible
- Designed for a wide variety of indications
- Very long LED service life
- Independent of mains power thanks to rechargeable battery
- Very high spectral radiant intensity
- Homogeneous light distribution
- Customized light exposure time
- Very little heating up of the object thanks to cold light
- Reinforced aluminium case



HiLite power

The high-performance light polymerisation device HiLite power creates perfect polymerisation for all usual lightcuring dental materials.

HiLite power light polymerisation device including polymerisation pot und object holder

Product No.: 6603 7191

Advantages

- Easy operation.
- Polymerisation ensured by electromagnetic lock.
- Wide light spectrum of 300 – 500 nm.
- Short polymerisation times.
- Efficient cooling management.



Heraeus Kulzer Academies – our courses for your success.

We offer a full range of exciting training courses designed to surpass your expectations. Expand your knowledge and increase your skill levels by attending a tailored training programme presented by our technical training team. We are here to help you for all things and we look forward to seeing you.



For further informations on all training programmes please contact your local Heraeus Kulzer representative.



"Signum allows me total freedom to work on my individual veneering"

MDT Björn Maier,
Zahntechnik Björn Maier, Lauingen

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In compliance with the European guideline 93/42/EWG our medical devices are CE-marked according to the classifications.