

# FILLING MATERIALS



FILLING MATERIALS

GERMAN QUALITY FOR DENTISTRY

# INTRODUCTION

The company **MEGA-PHYSIK** GmbH & Co. KG was founded in 1970 in Rastatt, Baden-Württemberg..

Since then **MEGA-PHYSIK** has been a synonym for development and innovation in the production of high-quality dental curing light units which are worldwide applied in the dentistry.

As a medium-sized, owner-operated company, the staff of **MEGA-PHYSIK** are at the customers' disposal with competent and friendly advice.

In 1999 a further company for dental material was built in Radeberg, Saxony, and since then both, **MEGA-PHYSIK** dental curing light systems have been sold by our business partners and dental materials has been successfully used by dentists in more than 50 countries in the world.

The certification of the quality assurance system according to EN ISO 9001:2000 and DIN EN ISO 13485:2003 for the registration of the production of medical products, continuously guarantees the high-quality level of the products manufactured by **MEGA-PHYSIK**.



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## Hybrisun nano

**HYBRISUN nano** is a light curing universal composite that combines the typical properties of a microhybride with the advantages of nanotechnology. The high content of inorganic fillers (>82 % by weight / 67 % by volume) and the even distribution of the microglass and the nanoparticles ensure low shrinkage (<1.9 % by volume) in light polymerisation. As a result, high dimensional stability and abrasion resistance are achieved in the finished restoration. The filling material is X-ray opaque and applicable for fillings of class I; II; III; IV e V, for composite inlays and veneering of discoloured teeth.



**HYBRISUN nano** shows a natural fluorescence in ultraviolet light. Hybrisun nano is not sticky to the instrument, has a constant plastic consistency and is slightly thixotropic. This allows a stressfree work in the anterior and posterior tooth area. An extensive range of shades in Enamel, Dentine and Transparent compounds facilitates an optimal layering of aesthetic restorations. The filler combination guarantees the desired chameleon effect, a natural opalescence and adapted fluorescence. Hybrisun nano can be used with common adhesive systems, e. g. N-Bond and C-Prime S plus. The combination with Hybrisun nano flow permits optimal application in all cavity classes.



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Single package:            Syringe 4.0 g  
                                      Minifill 250 mg

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Assortment packages: 4 Syringes + accessories  
                                      6 Syringes + accessories

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Shades:                      Enamel: A1 / A2 / A3 / A3.5 / A4      Dentin: A2 / A3 / A3.5  
                                      B1 / B2 / B3                                      D3  
                                      C2 / C3 / C4  
                                      D3

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# FILLING MATERIALS



## Hybrisun nano *flow*

**HYBRISUN nano *flow*** is a novel flowable filling material and combines the typical properties of a flowable composite with the most recent findings of nanotechnology. With more than 74 % by weight, the total filler content of HYBRISUN *nano flow* is as high as that of conventional universal composites. HYBRISUN *nano flow* slightly moistens the cavity wall and flows well into the cavity in application. HYBRISUN *nano flow* shows a natural fluorescence in ultraviolet light and is used in the filling therapy for micro preparations and dental neck defects, extended fissure sealing, fixation and repair of composite and ceramic restorations as well as for applying the first

filling layer in composite restorations. Due to a slightly thixotropic consistency, HYBRISUN *nano flow* does not drip and can be applied with high precision. The combinability with filling materials such as N-Fill and N-Bond permits an optimal application range for HYBRISUN *nano flow*. During polymerisation the shrinkage of the material is reduced to a minimum by the nano-particle enriched matrix. The finished restoration with HYBRISUN *nano flow* can be polished to high gloss and is resistant against abrasion. HYBRISUN *nano flow* is available in the most popular basic shades.

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Single package:                      Syringe 2.0 g

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Assortment packages:    4 Syringes + accessories

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Shades:                                      A1 / A2 / A3 / A3.5 / B2

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# FILLING MATERIALS

## Hybrisun aesthetic

**HYBRISUN aesthetic** is the universal light curing Microhybrid-Composite for restorations in the anterior- and posterior tooth area.

The optimal consistence and colour choice permits the individual anterior fillings in the layer technique as well as the occlusal posterior fillings.

The filler combination, consisting of glass filler and ultra fine SiO<sub>2</sub>, is entirely coated with a reactive hydrophobic layer. This guarantees high restoration stability. The average size of the glass filler is 0.6 µm, rendering a high filler investment with optimal particle size distribution.



The measured filler combination ensures a concise chameleon effect, a natural opalescence through the Rayleigh dispersion of the visible light and high gloss polish capability. These properties lend a natural aesthetic looking to the placed filling.

Hybrisun aesthetic is X-ray opaque and available in a wide variety of shades.

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Single package:            Syringe 4,0 g  
                                      Minifills 250 mg

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Assortment packages:    4 syringes + accessories  
                                      6 syringes + accessories

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Shades:	Enamel:	A1 / A2 / A3 / A3,5	Dentin:	A1 / A2 / A3 / A3,5
		B2 / B3 / B4		B2 / B4
		C2 / C4		C4
		D3		D3
	Incisal:			transparent white-yellow transparent white-grey

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# FILLING MATERIALS



## Hybrisun aesthetic *flow*

**HYBRISUN aesthetic *flow*** is a flowable light curing Microhybrid Composite which is X-ray opaque. HYBRISUN aesthetic *flow* is used in the filling therapy of micro preparations and defects of the tooth neck, the expanded occlusion of fissures, the fixation and repair of composite- and ceramic restorations as well as the placement of the first filling layer by composite restorations. HYBRISUN aesthetic *flow* has optimal flowable properties. Due to its thixotropic consistence the investment does not drip and has good stability.

That is why the HYBRISUN aesthetic *flow* is very accurate applicable to the point in the smallest cavities and undercuts and the perfect supplement for HYBRISUN aesthetic. The fine transparency of HYBRISUN aesthetic *flow* causes the placed fillings to blend

in well with the surrounding natural tooth (chameleon effect) of the glass-filler investment. HYBRISUN aesthetic *flow* is available in the most popular basic shades. HYBRISUN aesthetic *flow* fulfils the highest demands in aesthetic, application range and economical working.

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Single package:                      Syringe 2,0 g

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Assortment packages:        4 syringes + accessories

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Shades:                                A1 / A2 / A3 / A3.5 / B2

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# FILLING MATERIALS

## HYBRISUN classic

**HYBRISUN classic** is a universal light curing Microhybrid Composite for restorations in the anterior- and posterior tooth area. The continuous plastic consistency and large colour assortment allows excellent usability of the material and is well suited for the classic filling therapy and layer technique in filling structures. HYBRISUN classic can be polished to a high gloss and offers a highly aesthetic restoration. The fillers contain fine dental glass particles and highly dispersible silicone oxides, which are specifically treated and cover the surface with a hydrophobic layer. The surface of HYBRISUN classic is therefore resistant and protected from residue deposits and discolorations. HYBRISUN classic is X-ray-opaque and has a fluorescent effect like the natural tooth structure.



The homogeneous structure of the investments and the selected fillers guarantee the chameleon effect and natural opalescence. The high gloss polish capability insures a long colour retention and natural aesthetic of the restoration. The pleasant process paired with the outstanding characteristics and the universal applicability of HYBRISUN classic stand for a high quality and long lifetime of the restoration.

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Single package:                 Syringe 4.0 g

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Assortment packages:     4 syringes + accessories  
                                      6 syringes + accessories

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Shades:	Enamel:	A1 / A2 / A3 / A3,5 / A4	Dentin:	A1 / A2 / A3 / A3,5
		B1 / B2 / B3 / B4		B2
		C1 / C2 / C3 / C4		D3
		D2 / D3/ D4		

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Incisal



# FILLING MATERIALS



## HYBRISUN classic *flow*

**HYBRISUN classic *flow*** is a flowable light curing Microhybrid Composite which is X-ray opaque. HYBRISUN classic *flow* has a natural fluorescence and is used in the filling therapy for micro preparations and tooth neck defects, the expanded fissure occlusion, the fixation and repair of composite- and enamel restorations as well as to the placement of the first filling layer by composite restorations.

The slightly thixotropic consistence prevents the dripping of HYBRISUN classic *flow* and allows accurate application. Therefore a high stability of the material is guaranteed. Measured transparency and

the combinability with filler materials, e. a. HYBRISUN classic, permit an optimal range of application for HYBRISUN classic *flow*. Based on the matrix with micro-glass-filler HYBRISUN classic *flow* can be polished to a high gloss and rendering it abrasion resistant. HYBRISUN classic *flow* is available in the most popular basic shades.

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Single package:                      Syringe 2.0 g

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Assortment packages:      4 syringes + accessories

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Shades:                              Enamel:      A1 / A2 / A3 / A3.5 / B2

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# FILLING MATERIALS

## Hybrisun molar

**Light curing condensable posterior filling material**

**HYBRISUN molar** is a light curing condensable filling material especially for posterior restoration. Due to the attuned filler combination, a very high filling degree of more than 67 % by volume is reached. This corresponds to a filling degree of more than 81 % by weight with conventional dental glass. The flexural strength of HYBRISUN molar is distinctly higher than the values of other universal composites. Therefore HYBRISUN molar is especially well suitable for the posterior tooth restoration. With this indication it is superior to the universal composites.



The high content of inorganic fillers and the special structure provide a stable consistency that prevents the mould from flowing and renders the material well condensable. This is achieved by means of the micro-morphological surface structure of the fillers. Their interlocking with each other under pressure causes HYBRISUN molar to be condensable.

HYBRISUN molar is X-ray opaque and applicable for fillings of class I, II and V, stump constructions, deciduous tooth restorations as well as for composite inlays in the posterior tooth area. HYBRISUN molar is not sticky to the instrument and can be used with metal matrix and wooden wedge. Its outstanding condensability and stability facilitate easy shaping of points of contact and occlusion surfaces.

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Single package:                      Syringe 4.0 g

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Assortment packages:    4 syringes + accessories  
    6 syringes + accessories

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Shades:                                  Enamel:      A1 / A2 / A3 / A3.5 / B2 / D3

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# TRAY MATERIALS

## MP-TRAY

**MP-Tray** is a light curing tray material for the fabrication of individual custom trays with extremely high dimensional stability. The composite resin is presented in form of contoured wafers in the colours pink, blue and transparent (natural).

The simple processing of MP-Tray with a long modelling- and processing time makes the efficient production of individual custom trays in the laboratory and dental cabinet possible. The universal form and the consistent thickness of 2.2 mm of MP-Tray

allow the production of upper and lower trays. The grip can be made from the rest of the material. After modulation MP-Tray must be cured in a light curing unit, e. a. MEGALIGHT, for 5 minutes. The consistently high quality of the material guarantees a minor polymerisation shrinkage (below 2 vol. %) and excellent form stability.



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Single package:                      Box à 50 pieces

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Assortment packages:      Carton with 2 boxes à 50 pieces

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Shades:                                      pink, blue and transparent

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## MP-TRAY base plate

**MP-Tray** material is also as light curing base plate available. The thickness of the contoured wafers is only 1.4 mm. MP-Tray base plates wafers are suitable for fabrication of biteplates and bite templates. The slight transparency of the tray allows the graceful work with marked models. After modulation, MP-Tray plate must be cured in a light curing unit, e. a. MEGALIGHT, for 5 minutes approx. The consistently high quality of the material guarantees a minor polymerisation shrinkage and outstanding form stability.

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Single package:                      Box à 50 pieces

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Shades:                                      pink

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# GLASS-IONOMER-CEMENTS

## Megacem Aqua-Set

**Megacem** is suitable for the restorations in the cavities class III, V and minimal class I fillings, fissure fillings, restorations in deciduous teeth and for build up cores. It is available as water-mixed glass-ionomer cement for dental fillings. The shading of Megacem with 6 basic colours makes restorations with high aesthetics and an economic inventory possible. Megacem guarantees a strong adhesion to natural tooth Enamel and Dentin. Megacem is formulated for low solubility and low acidity.



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Single package: 1 x powder 20 g

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Assortment packages: 1 x powder 20 g,  
1 x plastic bottle, 1 x mixing pad  
1 x spatula

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Shades: A1 / A2 / A3 / A3.5 / B2

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## Megacem powder / liquid

**Megacem** is a glass-ionomer cement in powder and liquid for dental fillings. The application and shades are the same like Megacem aqua-set.

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Single package: 1 x powder 20g  
1 x liquid 10 ml

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Assortment packages: 1 x powder 20 g, 1 x liquid 10 ml  
1 x spatula, 1 x mixing pad

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Shades: A1 / A2 / A3 / A3.5 / B2

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# GLASS-IONOMER-CEMENTS

## Megafix Aqua-Set

**Megafix** is suitable for the cementing of crown- and bridge works, inlays and veneers. It is available as water-mixed glass-ionomer cement for dental fixations. Megafix can be used for luting as under filling and fixation material. Megafix joins a very low film thickness with a high compressive strength. Megafix guarantees a strong adhesion to natural tooth Enamel and Dentine with Fluoride release. The cement is formulated for low solubility and low acidity in the mouth.



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Single package: 1 x powder 20 g

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Assortment packages: 1 x powder 20 g,  
1 x plastic bottle, 1 x mixing pad  
1 x spatula

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## Megafix powder / liquid

**Megafix** is a glass-ionomer cement in powder and liquid for dental fixations. The application is the same like Megafix aqua-set.

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Single package: 1 x powder 20 g  
1 x liquid 10 ml

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Assortment packages: 1 x powder 20 g, 1 x liquid 10 ml,  
1 x spatula, 1 x mixing pad

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# MEGAZID

## MEGAZID

the trouble free universal disinfectant

*Bactericidal + Virucidal + Fungicidal + Sporicidal*

### Easy to dispense



Suitable for **all surfaces**, Non-toxic,  
Non-corrosive & Non-carcinogenic,  
Environmentally friendly &  
Aquatic safe

### Ready to spray



Kills MRSA Bacteria, Norovirus,  
E-coli, Listeria, Hepatitis A-B-C,  
Anthrax. HIV, Clostridium difficile  
Spores, and all known germs.

No Resistance Formation, **Destroy DNA** and thereby prevents microbes from reproducing  
Free from Alcohol, Quaternary ammonium compounds (Quat's) & Phenol's

### For standard Surface Disinfection use:

Add 1 tablet to 500 ml of warm water (0,5% solution) exposure time 15 minutes

### If you need a quick solution:

Add 2 tablets to 500 ml of warm water (1% solution) exposure time 8 minutes

Add 3 tablets to 500 ml of warm water (1,5% solution) exposure time 4 minutes

Add 4 tablets to 500 ml of warm water (2% solution) exposure time 2 minutes

### The Best Protection from Infection

Available in packs of

1 x 25 pcs

**MEGAZID-dent** Tabs  
equal to 12,5 litres of  
disinfectant solution.  
Order No. 8901.01

4 x 25 pcs

**MEGAZID-dent** Tabs  
equal to 50 litres of  
disinfectant solution.  
Order No. 8901.02

**MEGAZID-dent**

hand-spray bottle with  
UV filter 0,5 litre  
Order No. 8902.00

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# DISINFECTANTS

## Disinfectants in Comparison

Active ingredient	Effective against				Toxicology			No significant protein error	Corrosion No corrosion on surface materials		
	Viruses		Bacteria		Mycobacteria	Fungi	Non-cytotoxic			Non mutagenic	Non cancerogenic
	enveloped	non enveloped	Gram-positive	Gram-negative							
MEGAZID-dent Tosylchloramid-Natrium	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Acridin colouring	—	—	✓	✓	—	—	✓	—	✓		
Chloramphenicol 8-Chinolinsulphane	—	—	✓	✓	—	—	—	—	✓		
Peracetic acid	✓	✓	✓	✓	✓	✓	—	—	—		
Phenols	✓	—	✓	✓	✓	✓	—	—	—		
Formaldehyde	✓	✓	✓	✓	✓	✓	—	—	—		
Glutaraldehyde	✓	—	✓	✓	✓	✓	—	—	—		
Quats	—	—	✓	—	—	—	✓	—	✓		
4-chloro-m-cresol	✓	—	✓	✓	—	—	—	—	—		
4 hexylresorcin	—	—	✓	✓	✓	✓	—	—	—		
Alcohol 70 %	—	—	✓	✓	✓	✓	—	—	✓		
Hydrogen peroxide	✓	✓	✓	✓	✓	✓	—	—	—		
DCIC	✓	✓	✓	✓	—	—	—	—	—		
Sodium hypochloride	✓	✓	✓	✓	—	—	—	—	—		

To the best of our knowledge and belief, all the information given above is according to the current state of research. It is given, however, without liability in respect of existing third party industrial property rights. In particular, no quality warranty in the legal sense is attached to it. We reserve the right to make changes as part of scientific advances and further company development. Reference to other companies' products is not a recommendation and does not exclude the use of similar products. The consumer is not excused from careful quality checking. As we have no control over the correct use of product, we accept no warranty claims whatsoever or any liability arising from improper use of a product or raw material.  
Information date: January 2000

# ADHESIVE SYSTEMS

Mega-Physik provides high-class adhesive systems for the optimal filling therapy. With **C-Cid** the natural tooth enamel can be etched or the "Total Etch Technique" performer. **C-Bond** and **N-Bond** as light curing dental adhesive guarantees a high mechanic bonding for the filling on natural Enamel. With the combination of **C-Prime S** this is also possible on the Dentin surfaces. The conditioning of enamel and dentin can take place in one process with the universal prime and bond **C-Prime S plus**.



## C-Cid

C-Cid is an etching gel for the adhesive filling therapy, consisting of a glycerine gel with a 37% phosphoric acid contents. C-Cid is also suitable for the total etching technique.

Single package:	Assortment packages:
Syringe 3.0 g	2 syringes + accessories



## C-Bond

C-Bond is a light curing dental adhesive and is used in the filling therapy as adhesive connection as well as bonding during the repair of resin-, ceramic, crown- and bridge works.

Single package:	Assortment packages:
Bottle 5 ml	1 bottle C-Bond 5 ml + accessories

## N-Bond

**Dental adhesive by nano-concept**



N-Bond is a light curing and with nano-particles reinforced dental adhesive. By adding nano-particles, the properties are improved without increasing the viscosity of the adhesive. N-Bond is easy to apply and moistens the tooth cavity for excellent adhesive bonding.

The low polymerisation shrinkage reduces the marginal gap formation in filling therapy to a minimum. N-Bond is used in fissure sealing and adhesive fixation.

Single package:	Assortment packages:
Bottle 5 ml	N-Bond is part of nano assortment packages

## C-Prime S plus

C-Prime S is a light curing ethanol based prime & bond dental adhesive for the Enamel- and Dentine adhesion used in the filling therapy. C-Prime S plus is used in the direct, light curing composite- and compomer filling therapy, by indirect ceramic- and composite restorations (inlay, onlay, veneers) as well as bonding during the repair of resin-, ceramic-, crown- and bridge works. The ethanol base of C-Prime S plus ensures a fast and secure use and provides the ideal bonding of the composite (Wet-Bonding-Technique).



Single package:	Assortment packages:
Bottle 5ml	1 C-Prime S plus + accessories, as part of assortment packages

*For more information, contact:*

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