

Product Description

Panacol Vitralit® adhesives are one-component, solvent-free radiation-curing adhesives. The advantages are very short curing times, good adhesion to a variety of substrates, and easy handling. Vitralit® products are used in electronics, medical applications, optics and for fixing parts in general.

Vitralit® MASK 20102 is a shear thinning, UV and visible light curing removable masking material. It is elastic and developed to protect highly polished parts of orthopedic implants and components from aerospace during mechanical surface treatment such as grit blasting, shot peening, polishing and plating. It provides good bonding to steel, aluminum, titanium, nickel, cobalt and other commonly used metals in the aerospace and medical implant industry.

Vitralit® MASK 20102 is fast curing and easy to handle. The product is free of nonreactive solvents and provides environmentally friendly handling. Due to the pink color a surface contrast for better visibility of coverage during application and removal is created. Vitralit® MASK 20102 can be removed easily by peeling after a short hot water soak at 80 °C.

Curing Properties

UV-A	VIS	Thermal curing	Activator curing
✓	✓	-	-

✓ suitable - not suitable

The product cures within seconds with radiation in the UV-A - range (320 nm - 390 nm) and visible range (405 nm). For rapid and high quality crosslinking we recommend the UV devices manufactured by Dr. Hoenle AG, which complement our adhesive technology.

UV-curing (Hoenle Bluepoint LED, 365nm)		
Intensity [mW/cm ²]	Layer thickness [mm]	Time [sec]
100	2	30

VIS-curing (Hoenle LED Spot 100, 405nm)		
VIS intensity [mW/cm ²]	Layer thickness [mm]	Time [sec]
100	0,5	10

To obtain full cure at least one substrate must be transparent to the recommended wavelength. The curing speed will depend on the intensity of light, light source, the exposure time, and the light transmittance of the substrate. Increased mechanical properties are achieved after 12 hours.

Technical Data

Resin
Appearance

urethane acrylate
pink, translucent

Technical Datasheet

Vitralit[®] MASK 20102



Uncured material

Viscosity [mPas] (Kinexus Rheometer, 25 °C, 10s ⁻¹) <i>PE-Norm 064</i>	7 000 - 15 000
Viscosity [mPas] (Kinexus Rheometer, 25 °C, 50s ⁻¹) <i>PE-Norm 064</i>	2 000 - 6 000
Density [g/cm ³] <i>PE-Norm 004</i>	1,0
Flash point [°C] <i>PE-Norm 050</i>	>100

Cured material

Hardness shore D <i>PE-Norm 006</i>	30 - 50
Temperature resistance [°C]	-45 - 145
Shrinkage [%] <i>PE-Norm 031</i>	<4
Glass transition temperature DSC [°C] <i>PE-Norm 009</i>	25 - 37

Transport/Storage/Shelf Life

Trading unit	Transport	Storage	Shelf-life*
Cartridge	at room temperature	at room temperature	at delivery min. 3 months
other packages	max. 25°C	max. 25°C	max. 6 months

***Store in original, unopened containers!**

Instructions for Use

Surface preparation

The surfaces to be bonded should be free of dust, oil, grease or other dirt in order to obtain an optimal and reproducible bond.

For cleaning we recommend the cleaner IP[®] Panacol. Substrates with low surface energy (e.g. polyethylene, polypropylene) must be pretreated in order to achieve sufficient adhesion.

Technical Datasheet

Vitralit® MASK 20102



Application

Our products are supplied ready to use. Depending on packaging they can be applied by hand directly from the container or semi or fully automatically. With automated application from the cartridge the adhesive is conveyed by a compressed air-operated displacement plunger via a valve in the needle. When metering low viscosity materials from bottles the adhesive is transported by a diaphragm valve. If help is required, please contact our application engineering department.

Adhesive and substrate may not be cold and must be warmed up to room temperature prior to processing.

After application, bonding of the parts should be done quickly. Vitralit® adhesives cure slowly in daylight. Therefore, we recommend to expose the material to as little light as possible and the use of opaque hose lines and dispensing needles.

For safety information refer to our safety data sheet.

Disclaimer

The product is free of heavy metals, PFOS and Phthalates and is conform to the EU-Directive 2017/2102/EU "RoHS III".

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Contact

Panacol-Elosol GmbH
Daimlerstr. 8
61449 Steinbach
Germany
Phone.: +49 6171 6202-0
Mail: info@panacol.de
www.panacol.com

Panacol-USA, Inc.
142 Industrial Lane
Torrington CT 06790
USA
Phone: +1 860-738-7449
Mail: info@panacol-usa.com
www.panacol-usa.com

Panacol-Korea Co., Ltd.
#707, Kranz Techno, 388 Dunchon-daero
Junwon-gu, Seongnam
Gyeonggi-do, 13403 KOREA
Phone: +82 31 749 1701
Mail: info@panacol-korea.com
www.panacol-korea.com

Eleco Panacol – EFD
125, av Louis Roche
Z.A. des Basses Noëls
92238 Gennevilliers Cdx FRANCE
Tél.: +33 (0)1 47 92 41 80
Mail: eleco@eleco-panacol.fr
www.eleco-panacol.fr