

Product Description

Modified epoxy | 1 part | solvent-free | UV curing

- Flexible potting
- Optics

- Low viscosity
- Flexible
- Low Sb-content

Curing Properties

UV-A	LED 365nm	LED 405nm	Secondary heat cure
\checkmark	\checkmark	-	-

✓ suitable – not suitable

UV-curing (Hoenle Discharge lamp, 320-390nm)			
Intensity [mW/cm ²]*	Layer thickness [mm] Time [s]		
60	0.5	60	

*measured by Hoenle UV-Meter 3.0 / UV-A FO

LED-curing (Hoenle LED Spot 100, 365nm)			
Intensity [mW/cm ²]**	Layer thickness [mm] Time [s]		
300	0.5	30	

**measured by Hoenle UV-Meter 3.0 / LED F2

To obtain full cure at least one substrate must be transparent to the recommended wavelength. The curing speed depends on the wavelength spectrum of the light source, the intensity of light, the distance to the light source, the component geometry and the amount of adhesive. The final strength is reached after 24 hours.

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Resin Epoxy Appearance Transparent Uncured Material Viscosity (mPas) (Brookfield LVT, 25 °C, Sp. 2/30 rpm) 75 - 200 Viscosity (mPas) (Brookfield LVT, 25 °C, Sp. 2/30 rpm) 75 - 200 PE-Norm 001 1.0 - 1.2 Refractive index (nD20) 1.47 - 1.49 PE-Norm 018 1.47 - 1.49 Cured Material 1.47 - 1.49 Hardness shore D 50 - 60 PE-Norm 018 50 - 60 Temperature resistance [°C] -50 - 150 Shrinkage [%] < 2 PE-Norm 016 Glass transition temperature - DSC [°C] 10 - 30 PE-Norm 016 10 - 30 Coefficient of thermal expansion [ppm/K] above Tg 180 - 280 PE-Norm 017 180 - 280 Young's modulus - Tensile test [MPa] 30 - 50 Fe-doped hand lamp, 60mW/cm², 30s + 105 °C, 30min 12 - 18 PE-Norm 014 10 - 15 PE-Norm 014 10 - 15 PE-Norm 014 10 - 15	Technical Data	
AppearanceTransparentUncured MaterialTransparentViscosity [mPas] (Brookfield LVT, 25 °C, Sp. 2/30 rpm)75 - 200PE-Norm 0011.0 - 1.2Density [g/cm³]1.0 - 1.2PE-Norm 0041.47 - 1.49Refractive index [nD20]1.47 - 1.49PE-Norm 0180Cured Material0Hardness shore D50 - 60PE-Norm 05650 - 60Temperature resistance [°C]-50 - 150Shrinkage [%]< 2PE-Norm 031< 2Water absorption [%]< 1PE-Norm 01610 - 30Coefficient of thermal expansion [ppm/K] below Tg100 - 30Coefficient of thermal expansion [ppm/K] above Tg180 - 280PE-Norm 017180 - 280Young's modulus - Tensile test [MPa]30 - 50PE-Norm 05612 - 18Tensile strength [MPa]12 - 18Fe-Aoped hand lamp, 60mW/cm², 30s + 105°C, 30min10 - 15PE-Norm 014100 - 15Liongation at break [%]10 - 15°C, 30minPE-Norm 01410 - 15°C, 30minLiongation at break [%]10 - 15°C, 30minPE-Norm 01410 - 15°C, 30minLiongation at break [%]10 - 15°C, 30minPE-Norm 01410 - 15°C, 30minLiongation at break [%]2 - 4		
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Fe-doped hand lamp, 60mW/cm², 30s + 105°C, 30min 2 - 4		
		2-4



Transport/Storage/Shelf Life

Package type	Transport	Storage	Shelf life*
Syringe/Cartridge	At room temperature	At room temperature	At delivery min. 6 months
Other packages	max. 25°C	max. 25°C	max. 12 months

*Store in original, unopened containers!

Instructions for use

Surface preparation

The surfaces to be bonded should be free of dust, oil, grease, mold release, or other contaminants in order to obtain an optimal and reproducible bond. For cleaning we recommend the cleaner IP[®] from Panacol, or a solution of Isopropyl Alcohol at 90% or higher concentration. Substrates with low surface energy (e.g. polyethylene, polypropylene) must be pretreated in order to achieve sufficient adhesion.

Application

Our products are supplied ready to use. Depending on the packaging, our adhesives may be dispensed by hand directly from the package, or they can be applied using dispensing systems and automation that is compatible with light-curable adhesive chemistry. Vitralit[®] adhesives can begin to cure slowly in daylight and with longer term exposure under indoor lighting. We therefore recommend that adhesive exposure to ambient light must be kept to a minimum. Fluid lines and dispense tips must be 100% light blocking. For assistance with dispensing options, please contact our Application Engineering department. Adhesive and substrate should not be cold for proper bonding. They must be allowed to warm to room temperature prior to processing. After dispensing the adhesive, bonding of the parts should be done promptly. It is recommended that curing stations be equipped with air exhaust systems to evacuate vapors and heat generated during the curing process. After curing, the adhesive must be allowed to cool to ambient temperature before testing the product's performance. For safety information refer to our Material Safety Data Sheet (MSDS).

Storage

This is light sensitive material. Containers must remain covered when not in use. Minimize exposure of uncured material to daylight, artificial light, and UV light during storage and handling. Store uncured product in its original, closed container in a dry location. Any material removed from the original container must not be returned to the container as it could be contaminated. Panacol cannot assume responsibility for products that were improperly stored, contaminated, or repackaged into other containers.



Handling and Clean-up

For safe handling information, consult this product's Material Safety Data Sheet (MSDS) prior to use. Uncured material may be wiped away from surfaces with organic solvents. Do not use solvents to remove material from eyes or skin!

Disclaimer

The product is free of heavy metals, PFOS and Phthalates and is conform to the current EU-Directive RoHS.

THE VALUES NOTED IN THIS TECHNICAL DATA SHEET ARE TYPICAL PROPERTIES AND ARE NOT MEANT TO BE USED AS PRODUCT SPECIFICATIONS.

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The user should adopt such precautions and use guidelines as may be advisable for the protection of property and persons against any hazards that may be involved in this product's handling or use. Panacol specifically disclaims any liability for consequential or incidental damages of any kind arising from the handling or use of this product. The information contained in this Technical Data Sheet offers no assurance that the product use, application, or process will not infringe on existing patents or licenses of others. Nothing in this Technical Data Sheet transfers or grants license for the use of any patents, trade secrets, intellectual property, or confidential information that is the property of Panacol.

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Contact

Panacol-Elosol GmbH Stierstädter Straße 4 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

> Page 4/4 Updated 04.01.2024 Revision: 3 DIN ISO 9001 certified