

Technical data sheet



Product: 5604

Manufacturer: PANACOL-ELOSOL GMBH

Product group: KLEBSTOFF

Article group: STRUCTALIT

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STRUCTALIT 5604

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Tewipack Uhl GmbH
Industriestraße 15
D-75382 Althengstett

Telephone:
+49(0)7051/9297-0
Fax:
+49(0)7051/9297-99

E-Mail:
info@tewipack.de
Website:
www.tewipack.de

Managing director:
Alexander Uhl,
Michael Uhl
HRB 330424
Amtsgericht
Stuttgart

Bank details:
Sparkasse
Sindelfingen
Pforzheim
Calw
BLZ 666 500
85
Konto 17 787

Commerzbank
Sindelfingen
BLZ 603 400 71
Konto 8 001 166

Vereinigte
Volksbank AG
Böblingen
BLZ 603 900 00
Konto 80 089
003

Postbank
Stuttgart
BLZ 600 100
70
Konto 146
294 708

Technical Datasheet

Structalit® 5604



Product Description

Modified epoxy | 1 K | solvent-free | heat-curing

- ▶ SMD adhesive
- ▶ Bonding of electronic components
- ▶ Fast curing
- ▶ Resistant to soldering temperatures up to 270°C (mx. 5 minutes)

Curing Properties

This adhesive can be cured with heat. Typical curing temperatures are listed in the table below.

Temperatures	Time
100°C	50 min
120°C	17 min
150°C	4 min

It is recommended not to cure more than 0.4 g Structalit® 5604 at one time.

The curing times given are guidelines. They refer to rheological measurements according to PE-Norm 067. The heating times of the parts to be joined are not taken into account. Actual cure times can vary based on part size, configuration, adhesive volume, temperature control, and the time required for the component substrates to attain oven temperature.

The final bond strength of the adhesive is achieved no sooner than 24 h after the bonded components are removed from the oven.

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Technical Data

Resin	Epoxy
Appearance	Red
Uncured Material	
Viscosity [mPas] (Kinexus Rheometer, 25 °C, 10s ⁻¹) <i>PE-Norm 064</i>	25,000 – 40,000
Thixotropic index [1/10] <i>PE-Norm 064</i>	6 – 7
Density [g/cm ³] <i>PE-Norm 004</i>	1.1 – 1.25
Flash point [°C] <i>PE-Norm 050</i>	>100
Cured Material	
Hardness shore D <i>PE-Norm 006</i>	75 – 90
Temperature resistance [°C]	-40 – 180
Shrinkage [%] <i>PE-Norm 031</i>	<2
Water absorption [%] <i>PE-Norm 016</i>	<1
Glass transition temperature - DSC [°C] <i>PE-Norm 009</i>	115 – 135
Coefficient of thermal expansion [ppm/K] below Tg <i>PE-Norm 017</i>	30 – 60
Coefficient of thermal expansion [ppm/K] above Tg <i>PE-Norm 017</i>	170 – 300
Dielectric constant [10kHz] <i>IEC 62631-2-1</i>	2 – 5
Volume resistivity [Ohm*cm] <i>PE-Norm 040</i>	1 – 5E+12
Young's modulus – DMA [MPa] <i>150°C, 20min</i> <i>PE-Norm 022</i>	400 – 600

Transport/Storage/Shelf Life

Package type	Transport	Storage	Shelf life*
Syringe/Cartridge	0°C – 10°C	0°C – 10°C	At delivery min. 3 months max. 6 months
Other packages			

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

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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 packaging they can be applied by hand directly from the container or by using compatible dispensing systems and automation. Many commercially available valve and controller options are available to ensure accurate and consistent adhesive dispensing. For assistance with dispensing and curing questions, please contact our Applications Engineering department. To obtain best results, the adhesive and substrates to be bonded may not be cold and should be allowed to warm to room temperature prior to processing. For safety information refer to our Material Safety Data Sheet (MSDS).

Storage

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!

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Disclaimer

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

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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