

PRODUCT DESCRIPTION

Modified acrylate | 2 part | solvent-free | room temperature

- ▶ Bonding materials such as metal, glass, ceramics, wood and many plastics (except PE and PP)
- ▶ Suitable for hard, non-porous materials
- ▶ High flame point
- ▶ Flexible and high power transmission
- ▶ Good temperature resistance

CURING PROPERTIES

This product is a two-component adhesive. The adhesive can be applied after mixing the two components in their appropriate ratios. All two-component adhesives have a determined pot life. Consideration should be given to the amount of adhesive that is mixed, as it must be applied within the noted pot life for optimal dispensing and assembly.

Mixing ratio	Pot life
1:1	2 min

This adhesive can be cured at room temperature. Typical curing parameters are listed in the table below.

Curing	Time
Curing time	15 min

The pot life and curing time given are guidelines. They refer to rheological measurements according to Test instruction P019 and Test instruction P067. 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.

TECHNICAL DATASHEET

PENLOC® GTI-S



TECHNICAL DATA

Resin	Methacrylate
Appearance part A	Yellowish
Appearance part B	Blue
Appearance mix	Transparent
Uncured Material	
Viscosity [mPas] (Kinexus Rheometer, 25 °C, 10s ⁻¹) part A <i>Test instruction P064</i>	3,000
Viscosity [mPas] (Kinexus Rheometer, 25 °C, 10s ⁻¹) part B <i>Test instruction P064</i>	2,800
Density [g/cm ³] <i>Test instruction P004</i>	1.0
Cured Material	
Hardness shore D <i>Test instruction P006</i>	65 – 70
Typical operating temperature [°C]	-40 – 120
Linear shrinkage [%]	<1
Water absorption [wt%] <i>Test instruction P016</i>	<9
Glass transition temperature – DSC [°C] <i>Test instruction P009</i>	88
Coefficient of thermal expansion [ppm/K] below Tg <i>Test instruction P017</i>	31
Coefficient of thermal expansion [ppm/K] above Tg <i>Test instruction P017</i>	322
Young's modulus – Tensile test [MPa] <i>Test instruction P056</i>	504
Elongation at break [%] <i>Test instruction P014</i>	15
Tensile strength [MPa] <i>Test instruction P014</i>	12
Lap shear strength (steel/steel) [MPa]	22
Lap shear strength (stainless steel/stainless steel) [MPa]	20
Lap shear strength (Al/Al) [MPa]	19
Lap shear strength (PC/PC) [MPa]	4
Lap shear strength (PMMA/PMMA) [MPa]	3
Lap shear strength (polyester/polyester) [MPa]	3

Lap shear strength (PVC/PVC) [MPa]	8
Lap shear strength (ABS/ABS) [MPa]	6

TRANSPORT/STORAGE/SHELF LIFE

Package type	Transport	Storage	Shelf life*
Syringe/Cartridge	At room temperature max. 25 °C	At room temperature max. 25 °C	Delivery min. 4.5 months max. 9 months
Other packages			

***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 Hoenle, 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.

Static mix tips provide the ability to efficiently mix the adhesive while dispensing. Many commercially available valve and controller options are available for two-part adhesives 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.

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. Hoenle 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.

The information contained in this data sheet is believed to be accurate and is provided for information only. Hoenle makes no representation or warranties of any kind concerning this information. It is the user's responsibility to determine the suitability of this product for any intended use. Hoenle does not assume responsibility for test or performance results obtained by the user. The user assumes all risk and liability connected with the use of this product.

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. Hoenle 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 Hoenle.

Except as otherwise noted, all trademarks in this document (identified as ®) are the property of Hoenle.

CONTACT

Hoenle Adhesives GmbH | Stierstädter Straße 4 | 61449 Steinbach | Germany

T: +49 6171 6202-0 | adhesivesystems@hoenle.com

For regional sales and technical support, please refer to our global contact directory

<https://www.hoenle.com/contact>.