

TECHNICAL DATASHEET

ergo.[®] 1645

(ergo.[®] 1644 + ergo.[®] 1600)

Description

ergo.[®] 1645 is a pasty, fast curing two-component grade, which is based on modified acrylics. The product bonds various plastics and metals as well as combinations of both of them. Dependent on ambient temperature, the 10:1 (V :V) mixed adhesive shows an open time of approximately 7 minutes. The functional strength is achieved already after 15 minutes (at 23°C). ergo.[®] 1645 is mainly used as an universal grade for industrial applications: Household appliance (white ware), advertising panels, traffic guidance systems, electronic and electrical engineering, vehicle industry, furnishment, windows and doors, bus- , truck-, rail- and car industry, boat and ship construction.

Advantages

- Good adhesion to a wide range of materials
- Non-dropping paste
- Overbridges gaps up to 2mm
- Excellent resistance against dynamic loads
- Resistant against outside conditions and humidity
- 100% reactive compound

Product data

Chemical base
Curing system
Mixing ratio

Methacrylate
2-Component-System
10 : 1 (resin : hardener by volume)

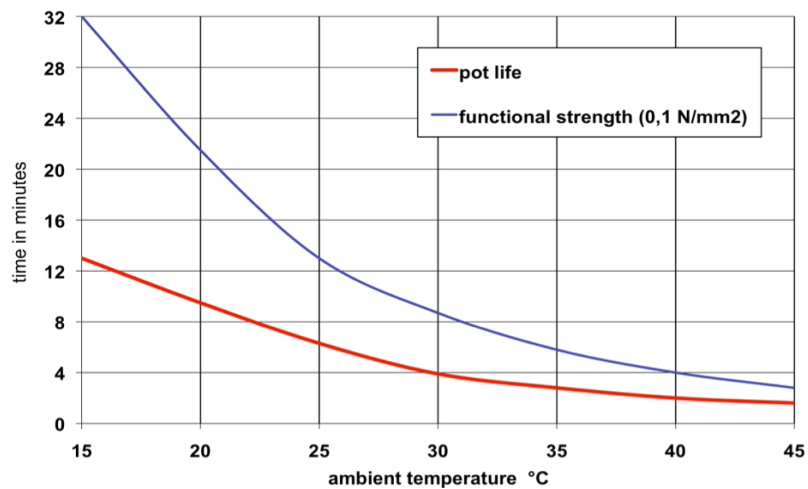
Physical properties (uncured)

Viscosity	Resin	ergo. [®] 1644	~130'000 mPa•s
	Hardener	ergo. [®] 1600	~55'000 mPa•s
Density	Resin	ergo. [®] 1644	1.00 g/cm ³
	Hardener	ergo. [®] 1600	1.12 – 1.15 g/cm ³
Colour	Resin	ergo. [®] 1644	beige
	Hardener	ergo. [®] 1600	white
Gap filling			up to 2 mm

Curing properties

Open time	~ 7 minutes
Functional strength [$\sim 10 \text{ N/mm}^2$]	~ 15 minutes
Final strength	~ 24 hours
Application temperature	+10 °C to +40 °C

Curing behaviour



Physical properties (cured):

Usage temperature	- 40°C to + 100°C
Glass transition temperature (DIN 53445)	~ 86°C
Shore D-hardness (DIN 53505)	~ 70
Tensile strength (DIN 53504) after 24 h at 23°C	~ 15 N/mm ²
Elongation at break after 24 h at 23°C	~ 30 %
Lap shear strength (DIN EN 1465) after 24 h at 23°C	
Steel	~ 21 N/mm ²
Stainless Steel	~ 20 N/mm ²
Aluminium	~ 20 N/mm ²
GFRP	(X)
ABS	(X)
PMMA	(X)

(X) = Failure of test specimen

Handling and storage

Due to the high reactivity of the product and the exothermic curing process, never mix bigger amount of the components. The heat might evaporate parts of the formulation and cause strong smell. Do not waste exceeded material in plastic containers, because of the danger of melting.

Slight serum formation may occur during storage.

The serum does not imply any quality issues and can be ejected when levelling the cartridge before first use.

Precautions

For your own safety, please refer to the information of the concerned MSDS and for the correct handling the "user instructions".

The information in this data sheet is based on the results of our research and experience. However, the suggestions herein concerning the use, application, and processing of the products (collectively, „the methods“) **are non-binding recommendations only**. It is the user's sole responsibility to determine the suitability and safety of these methods, based on the user's particular purpose in using the products. Before relying on the reliability and safety of any parts that are bonded using the products, it is extremely important that the user test the reliability and safety of the parts that are bonded. Failure to do so could result in serious personal injury. Because of the use of the products are within the purchaser's sole control, Kisling Corporation specifically disclaims all warranties, express or implied, including warranties of merchantability or fitness for a particular purpose, arising from the sale or use of the products described herein. Kisling Corporation specifically disclaims any liability for consequential, incidental, or other damages of any kind, including lost profits. Kisling Corporation's liability for damages shall not exceed the purchase price of the products used.

TIS_1645_e/PC/03.05.2021