

TECHNICAL DATASHEET

ergo.[®] 4505

(ONE-4-ALL – medium strength universal anaerobic curing adhesive)

Description

Universal medium strength and thixotropic anaerobic adhesive and sealant, which may be used as threadlocker or fastener for stud bolts, and to bond ball and roller bearings into housings or tooth wheels on axles as well as flange sealant. This grade may be used also as pipe sealant and seals most common threaded pipe connectors immediately against pressure below 5 bars. The product cures even at lower temperatures (> 0°C)

Certified acc. to DVGW (DIN EN 751-1) and NSF Standard ANSI 61 for use in commercial and residential drinking water systems not exceeding +82°C. NSF P1 listed for use in food processing area.

Advantages

- Universal, can be used
 - as a threadlocker or fastener for stud bolts
 - to bond ball and roller bearings into housings or tooth wheels on axles
 - as a flange sealant
 - to seal pipes or threads
- Stays in position during assembly
- Low friction grade – reliable and reproducible on-torque
- Solvent-free, good chemical resistance

Physical properties (liquid product)

Chemical base	Diester of Methacrylic Acid
Curing System	Anaerobic curing adhesive
Shelf life	12 months at room temperature
Flash point	>100°C
Viscosity at 25°C (Brookfield RVT)	
spindle 6, 2.5 rpm	50'000 – 90'000 mPa•s
spindle 6, 20 rpm	15'000 – 30'000 mPa•s
Density	1.05 g/cm ³
Colour	yellow / fluorescent at 365nm
Max. thread diameter:	3 inches
Max. gap filling:	0.5 mm

Curing properties

Measured on M10 x 20 bolt – grade 8.8 black phosphatized – nut 0.8d (no on-torque)

Initial strength after:	15 – 30 minutes
Functional strength after:	1 – 3 hours
Final strength after:	3 – 6 hours

Physical properties (cured product)

Thermal range - 55 °C up to 150 °C

Measured on M10 x 20 bolt – grade 8.8 black phosphatized – nut 0.8d (5Nm on-torque)
according to DIN EN 15865

Loose-break torque:	10 – 20 Nm
Prevailing torque:	10 – 15 Nm

Shear strength (DIN EN ISO 10123) 6 – 13 N/mm²

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.

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