

TECHNICAL DATASHEET

4453

(Retaining compound – High strength and high temperature resistance)

Description

Fast curing, high strength and heat resistant product, which retains cylindrical joints with excellent resistance against temperature and acids, alkalines and water.

Certified acc. to DVGW (DIN EN 751-1), WRAS BS 6920 and to ANSI/NSF Standard 61 for use in commercial and residential potable water systems. Complies with the guide formulation of the German Federal Environment Agency, published 2016, February 11th, for use in contact with drinking water.

4453 is NSF S5 (formerly P1) listed for use in food processing areas and BAM-approved for use in contact with pure oxygen up to 10bar and 60°C.

Advantages

- Fast curing (can be accelerated with activator as well)
- Resists high static shear stress conditions and dynamic loads
- Heat resistant up to 175°C
- Solvent-free, good chemical resistance

Physical properties (liquid product)

Chemical base	Diester of Methacrylic Acid
Curing System	Anaerobic curing adhesive
Shelf-life standard packaging (≤ 250 g)	12 months at room temperature
Flash point	$>100^{\circ}\text{C}$
Viscosity at 25°C (Brookfield RVT) spindle 2, 20 rpm	450 – 650 mPa•s
Density	1.1 g/cm ³
Colour	Green (fluorescent)
Max. thread diameter	M 20
Max. gap filling	0.15 mm

Curing properties

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

Initial strength at 23°C	2 – 6 minutes
Functional strength at 23°C	0.5 – 1 hour
Final strength at 23°C	2 – 4 hours

Physical properties (cured product)

Thermal range - 55 °C up to 175 °C

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

Loose-break torque	> 25 Nm
Prevailing torque	> 40 Nm

Shear strength (DIN EN ISO 10123) > 27 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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