

TECHNICAL INFORMATION

BEST-MK 4838

BEST-MK 4838 is a one component, solvent free, high viscosity, high strength and anaerobic/light curing adhesive based on Dimethacrylate ester. In addition to the anaerobic curing the adhesive can be cured in a very short time with exposure to light of 320 to 550 nm.

BEST-MK 4838 is especially designed for series production and for other applications where a fixture time of a few seconds is necessary. The adhesive is recommended for bonding of coaxial parts like bushings and bearings, shaft to collar connections, for sealing of gaps up to 0,2 mm in metal parts, for fastening and sealing of thread joints up to a thread size of M20. The fast curing with light minimizes waiting times. Parts in shady areas will cure anaerobically. Also suitable for bonding metal to glass, glass to rubber, glass and ceramics, and glass to glass.

BEST-MK 4838 combines high strength with excellent chemical resistance. The “breakloose” moment is very high. Therefore in case of disassembly of thread connections it is possible that the screw can break or the thread is damaged. The low viscosity provides a good capillary action which supports a good distribution of the adhesive on the to be bonded surfaces. Due to the low viscosity the adhesive fills in gaps and very fine hairline cracks and cures in place. Fixture time in seconds can be reached by exposure to light with 320 – 550 nm.

PROPERTIES (liquid product)

Chemical Type	Dimethacrylate ester
Curing system	anaerobic/light
Color	yellow/brown-clear
Strength	high
Viscosity (Brookfield)	7000 - 15000 mPas
Density (DIN EN 542)	1,1 x 10 ³ kg/m ³
Thread sizes up to	R3
Bonding gap	0,2 – 0,4 mm
Thread friction	0,17
Shelf life in unopened original container (Storage temperature at 10 to 23°C)	12 months
Shelf life in unopened original BULK (Storage temperature at 8 to 16°C)	3 months

CURING TIME AT 23°C

Fixture time	5 - 15 min.
Fixture time with light	20 -40 seconds
Functional strength	3 - 5 hrs.
Total curing time	10 hrs.

STRENGTH VALUES (cured product)

Compression/shear strength (DIN EN 15337)	32 N/mm ²
Breakloose Moment (DIN EN 15865)	28 Nm
Breakaway Moment (DIN EN 15865)	30 Nm
Temperature range	-60°C to +150°C
Short time to	220°C

ENVIRONMENTAL AND CHEMICAL RESISTANCE

(DIN 53287 - test in accordance to DIN EN 15865) in % of the initial strength after 1000h Chemical absorption.

Water/Glycol at 87°C	95%
Motor Oil (MIL-L-46 152) at 125°C	100%
Unleaded Gasoline at 23°C	90%
Brake fluid at 23°C	85%
1,1,1 Trichlorethane at 23°C	90%
Ethanol at 23°C	95%
Acetone at 23°C	85%

For resistance against other chemicals, please check the chemical resistance listing.

Industrial health and safety standards

Hazard Statements: Causes skin irritation. Causes serious eye irritation. May cause an allergic skin reaction. May cause respiratory irritation. General rules regarding handling of chemicals apply. For further information please see corresponding material safety data sheets.

General

The data and information above correspond to the current know-how of BEST-Klebstoffe GmbH & Co.KG. Our information and data have been developed from laboratory tests and extensive practical experience. They shall not release any customer from its duty to perform receiving inspections and to do test runs in view of any intended use, nor do they constitute a representation that any product will have specific properties or be suitable for any definite use. BEST-Klebstoffe GmbH & Co. KG reserves the right to change the contents of this document as necessary.

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