



**TECHNICAL INFORMATION**

**BEST-MK 1812**

**BEST-MK 1812** is a one-component, solvent free, high strength and capillary anaerobic- and light-curing adhesive based on di-methacrylate-ester. In addition to the anaerobic curing method the product can also be cured very fast by exposure to light with a wave length of 400 to 500 nm.

**BEST-MK 1812** is especially suitable for serial production and for applications recommending fixture time of only a few seconds. It is also recommended for the following fields of applications:

- fastening of coaxial adherends, e. g. bushings, bearings and shaft-hub-connections
- sealing of gap sizes up to 0,05 mm in metal components
- securing and sealing of threaded connections with a thread sizes up to M5
- sealing of cast iron parts.

Due to its delayed cure the product is especially recommended for applications with the use of dosing units. In those applications excess adhesive can be cured by exposure to light with a wave length of 400 – 500 nm within seconds. Partial cure is reached instantly and allows fixing of the components and a production process without any delay for curing time. The adhesive not exposed to the light source cures anaerobically. Due to its capillary action the product is also suitable for subsequent application. Defective components can be repaired without the need for time consuming and cost-intensive disassembly.

**BEST-MK 1812** combines high strength with very good chemical resistance. Due to its high strength disassembly of threaded connections might not be possible without causing damage to screws or thread.

**PROPERTIES (liquid product)**

Chemical type	Di-methacrylate-ester
Curing system	Anaerobic/light curing
Appearance	Yellowish/clear
Strength class	High
Viscosity (Brookfield)	12 mPa·s
Thread size	up to M5
Density (DIN 51757)	1,1 x 10 <sup>3</sup> kg/m <sup>3</sup>
Max. gap filling	0,01 – 0,05 mm
Thread friction	0,17
Shelf life (Storage in unopened original container at 10°C up to 23°C)	12 months



Curing time @23°C

Fixture time (anaerobic curing)	5 to 15 minutes
Fixture time (light curing)	20 – 40 seconds
Functional strength	3 – 5 hours

Final strength	10 hours
----------------	----------

**STRENGTH VALUES (cured product)**

Compression shear strength (DIN 54452)	25 N/mm <sup>2</sup>
Breakloosemoment (DIN 54454)	35 Nm
Breakawaymoment (DIN 54454)	45 Nm

<b><u>TEMPERATURE RANGE</u></b>	-60°C – +150°C
---------------------------------	----------------

**CHEMICAL AND ENVIRONMENTAL RESISTANCE**

**(DIN 53287 – Test in accordance with DIN 54454)**

in % of the initial strength after 1000h chemical absorption

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

For more information on resistance against other chemicals please contact BEST-Klebstoffe.

**HEALTH AND SAFETY STANDARDS**

Danger! Causes skin irritation. May cause an allergic skin reaction. Causes serious eye damage. May cause respiratory irritation. 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. It is the user's responsibility to perform receiving inspections and to determine suitability for the user's purpose of any production methods. We disclaim all warranties expressed or implied, that any product will have specific properties for a particular purpose. BEST-Klebstoffe GmbH & Co. KG reserves the right to change the contents of this document as necessary.

Revision: 130611  
Revision Date: 11.06.2013