



UNI EN ISO 9001 - UNI EN ISO 14001

Registered Quality and Environment Management System Company

Technical Data Sheet

LOXEAL 83-21

技术咨询与报价

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Description

Fast curing high strength anaerobic adhesive for locking and sealing threads, and retaining of cylindrical components. Highly resistant to heat, corrosion, vibrations, water, gases, oils, hydrocarbons and many chemicals. Approved as thread sealant with gaseous oxygen up to 20 bar at +60°C (BAM Ref N° 2-1893/2012 E)

Physical properties

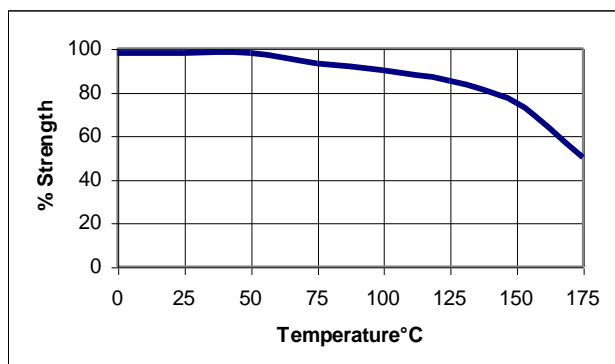
Composition : anaerobic methacrylate
 Colour : green
 Viscosity (+25°C - mPa s) : 400 - 600
 Specific weight (+25°C - g/ml) : 1,12
 max diameter of thread/ gap filling : M 20 / 3/4" - 0,15 mm
 Flash point : > +100°C
 Shelf life +25°C : 1 year in original unopened packaging

Curing performance

Curing rate depends on the assembly clearance, material surfaces and temperature. Functional strength is usually reached in 1 - 3 hours and full curing takes 24 - 36 hours. In case of passive surfaces and/or low temperature a fast cure can be obtained using Loxéal activator 11.

Environmental resistance

The graph below shows the mechanical strength vs. temperature.
 Steel specimen - ISO 4587



Curing properties

Handling time :
 - Brass (naked OT 58) : < 1 minute
 - Chromed and nicked brass : 3 - 6 minutes
 - Steel : 2 - 5 minutes
 - Aluminum : 6 - 18 minutes
 Tested on 1/2" thread specimens at +20°C. Results may change according to temperature and gap.
 Bolt M10 x 20 Zn - quality 8.8 - nut h = 0,8 d at +25°C :
 Functional cure time : 1 - 3 hours
 Full cure time : 2 - 4 hours
 Locking torque(ISO 10964) :
 - breakaway : 25 - 35 N m
 - prevailing : 50 - 70 N m
 Shear strength (ISO 10123) : 25 - 30 N/mm²
 Impact strength IASTM D950) : 5 - 12 kJ/m²
 Temperature range : -55°C/+175°C

Chemical resistance

Aged under conditions below after 24 hours from polymerisation at indicated temperature.

Substance	°C	Resistance after 100 h	Resistance after 500 h	Resistance after 1000 h
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Motor oil	125	excellent	excellent	excellent
Gear box oil	125	excellent	excellent	excellent
Gasoline	25	excellent	excellent	excellent
Water/glycol 50%	87	excellent	good	discrete
Brakes oil	25	excellent	excellent	excellent

For information on resistance with other chemicals, contact Loxéal Technical Service

Directions for use

The product is recommended for use on metal surfaces. Clean and degrease parts before bonding with Loxéal Cleaner 10. Apply product to fill completely the gap, assemble parts and hold on for curing time. Liquid product can damage coating, some plastics and elastomers and late stress-cracking events might be induced if used with some thermoplastics. For application on non metal materials, contact Loxéal Technical Service. For disassembly, use normal tools and eventually heat pieces at +150°C/+250°C, remove any residue of cured product mechanically and clean parts with Acetone.

Storage

Keep product in a cool and dry room at no more than +25°C.
To avoid contaminations do not refill containers with used product. For further information on applications, storage and handling contact Loxeal Technical Service

Safety and handling

Consult Material Safety Data Sheet before use.

Note

The data contained herein, obtained in Loxeal laboratories, are given for information only; if specifics are required, please contact Loxeal Technical Department.

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