LOXEAL ENGINEERING ADHESIVES

Technical Data Sheet

UNI EN ISO 9001:2000 CERTIQUALITY CERTIFIED QUALITY MANAGEMENT SYSTEM — CERTIQUALITY IS MEMBER OF CISQ FEDERATION — IQNet

LOXEAL 18-10 PIPE SEALANT

Description

Anaerobic adhesive for sealing of metal thread pipe joints. Suitable for gas, LP gas, compressed air, gasoline and oil, industrial fluids, CFC, potable water and several chemicals. Low friction coefficient will assure easy assembly. Thixotropic property prevents migration from thread of the sealant before or during curing. It replaces P.T.F.E. tape and yarn. Cured product provides elastic film. Shocks and vibrations resistant; uneffected sealing properties in the temperature range from -55 to +150°C. Easy dismantling is assured even after years.
Approvals for natural gas and LP gas in vapour state
Europe: approved to EN751-1 by DIN-DVGW NG 5146AR0574 from –20° C to +150° C up to 2" pipe size.
Australia: approved by AGA n.5047 up to 10 bar and 2" pipe size.

Physical properties

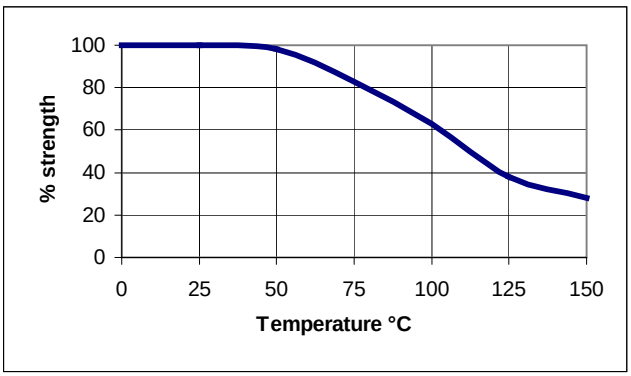
* Composition: anaerobic methacrylate
* Colour: OFF – white to avory
* Fluorescence : under blue light
* Viscosity (25°C - mPa.s): 17.000 – 50.000 thixotropic
* Specific weight (25°C - g/ml): 1,05
* Max diameter of thread/gap filling: 2" - 0,30 mm
* Flash point: > 100°C
* Shelf life 25°C: 1 year

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 Loxeal activator 11.

Environmental resistance

The graph below shows the mechanical strength vs. temperature.
Steel specimen – ASTM 1002/DIN 53283



Curing properties

Bolt M 10 x 20 - quality 8.8 - Nut h = 0,8.d at 25°C
* Handling cure time: 20 - 40 minutes
* Functional cure time: 1 - 3 hours
* Full cure time: 5 - 10 hours
* Shear strength (ISO 10123): 4 - 6 N/mm²
*Tensile strength (ASTM D-2095): 3 - 5 N/mm²
* Elongation at break : over 100%
* Locking torque (ISO 10964)
  breakaway: 6 - 11 N.m
  prevailing: 2 - 5 N.m
* Temperature range: -55 +150°C

Chemical resistance

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

Substance	°C	Resistance after 100 h	Resistance after 1000 h	Resistance after 5000 h
Motor oil	125	discrete	discrete	discrete
Gear box oil	125	discrete	discrete	discrete
Gasoline	25	excellent	excellent	excellent
Water/glycol 50%	87	excellent	Good	slight
Brakes oil	25	excellent	excellent	excellent

* For information on resistance with other chemicals, contact Loxeal Technical Service

Directions for use

The product is recommended for use on metal surfaces.
Clean and degrease parts before bonding with Loxeal 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 Loxeal Technical Service. For disassembly, use normal tools and eventually heat pieces at 150/250°C, remove any residue of cured product mechanically and clean parts with Acetone.

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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

Note

The data contained herein, obtained in Loxeal laboratories, are given for information only. Loxeal cannot assume responsibility for the results obtained by others which methods are not under Loxeal control. It is the user's responsibility to determine suitability for the user's purpose of any product mentioned herein. Loxeal disclaims all warranties expressed or implied, including warranties of merchantability or fitness for a particular purpose, arising from sale or use of Loxeal products. Loxeal specifically disclaims any liability for consequential or incidental damages of any kind, including lost profits**.**

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