

LOXEAL 58-11

Description

Anaerobic curing adhesive for sealing of metal thread joints.

Approved for Gas (DVGW, DIN-EN 751-1), high pressure gas and GLP (Australian Gas Association - Approval No. 5048) for working pressure up to 26 Bars. Approved for use with gaseous oxygen up to 10 Bars and 60°C (BAM 1432/95 4-755). Approved for potable water (WRC). Instructions for use with potable water: apply product on male threads only, wait 24 hrs. after assembly. Meets NSF requirements for use as a sealant in and around food processing areas (Registration no. 141234 - Category P1)

It replaces PTFE tape and yarn and gives instant sealing against moderate pressure. It seals against gas, water, LPG, hydrocarbons, oils and other chemicals. Thixotropic property prevents migration from thread of the sealant before or during curing.

Shocks and vibrations resistant, unaffected sealing properties in the temperature range from -50 to +150°C.

Physical properties

* Composition:	anaerobic methacrylate		
* Colour:	yellow		
* Fluorescence:	under blue light		
* Viscosity (25°C - mPa.s):	20.000	-	70.000 HT
	thixotropic		
* Specific weight (25°C - g/ml):	1,1		
* gap filling:	M80 / 2" / 0,30 mm		
* friction coefficient μ :	about 0,10		
* Flash point:	> 100°C		
* Shelf life 25°C:	2 years		

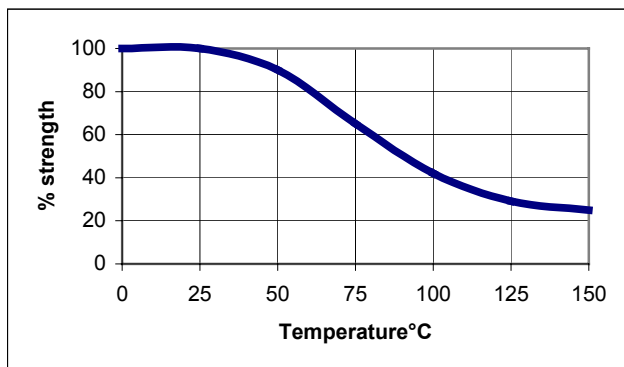
Curing performance

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:	15 - 30 minutes
* Functional cure time:	1 - 2 hours
* Full cure time:	3 - 6 hours
* Shear strength(ISO 10123):	6 - 13 N/mm ²
* Locking torque (ISO 10964):	
- breakaway:	18 - 24 N.m
- prevailing:	7 - 14 N.m
* Temperature range:	-55 +150°C

****Note: locking seal test for 24 hours at 230° C on 1 ½" zincate fittings**

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
Motor oil	125	excellent	excellent	excellent
Gear box oil	125	excellent	excellent	Excellent
Gasoline	25	Excellent	Excellent	Excellent
Water/glycol 50%	87	Excellent	Excellent	Good
Brakes oil	25	Excellent	Excellent	Good

* 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.

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.