LOXEAL ENGINEERING ADHESIVES
UNI EN ISO 9001 - UNI EN ISO 14001
Registered Quality and Environment Management System Company

Technical Data Sheet

LOXEAL 58-31

Description

Anaerobic curing adhesive for the gasketing and sealing of flanges.
It replaces solid gaskets and gives flexible cured films. To seal against gases, water, LPG, hydrocarbons, oils and other chemicals.
Thixotropic property prevents migration of the sealant before or during curing.
Shocks and vibrations resistant; unaffected sealing properties in the temperature range from -55°C to +180°C.

Physical properties

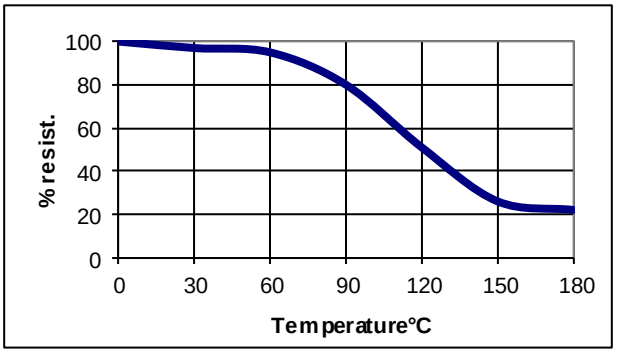
Composition :	anaerobic methacrylate
Colour :	red
Fluorescence :	under blue light
Viscosity (+25°C - Pa s) :	70 - 600
Specific weight (+25°C - g/ml) :	ca. 1,1
Gap filling :	0,50 mm
Flash point :	> +100°C
Shelf life +25°C :	1 year in original unopened packaging

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 Loxeal activator 11.

Environmental resistance

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



Curing properties

Bolt M10 x 20 Zn - quality 8.8 - nut h = 0,8 d at +25°C :

Handling cure time :	10 - 20 minutes
Functional cure time :	1 - 3 hours
Full cure time :	6 - 12 hours
Locking torque (ISO 10964)	
breakaway :	15 - 25 N m
prevailing :	18 - 28 N m
Shear strength (ISO 4587) :	8 - 13 N/mm²
Tensile strength (ISO 6922) :	7 - 10 N/mm²
Impact strength (ASTM D 950) :	4 - 7 KJ/m^2
Temperature range :	-55°C/+180°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	Resisance after 1000 h
Motor oil	125	excellent	excellent	excellent
Gear box oil	125	excellent	excellent	excellent
Gasoline	25	discrete	slight	slight
Water/glycol 50%	87	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°C/+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 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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