

LOXEAL 24-18

Description

Low strength anaerobic adhesive for thread sealing and thread locking of nuts, bolts and screws of all types that require to be easily dismantled.

Approved DVGW as gas-tight sealant for threaded fittings according to the European norm EN 751-1.

Highly resistant to heat, corrosion, vibrations, water, gases, oils, hydrocarbons and many chemicals.

Physical properties

Composition:	anaerobic methacrylate
Colour:	purple
Fluorescence:	under blue light
Viscosity (+25°C - mPa s):	800 - 1400
Specific weight (+25°C - g/ml):	1,05
Max diameter of thread/gap filling:	M 24 / 0,20 mm
Shelf life +25°C:	1 year in original unopened packaging

Curing performance

The rate of cure depends on the substrate used, on the gap and on the temperature. The functional strength is reached usually after 1 - 3 hours. The full cure takes 24 - 36 hours. In case of passivated surfaces and/or low temperature we recommend the usage of Loxeal Activator 11.

Curing properties (typical)

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

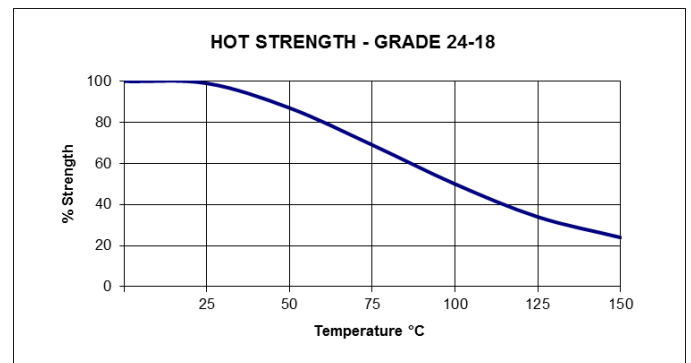
Handling cure time :	15 - 30 minutes
Functional cure time :	1 - 3 hours
Full cure time :	5 - 10 hours
Shear strength(ISO 10123) :	3 - 5 N/mm ²
Locking torque (ISO 10964) :	
- breakway :	5 - 8 N m
- prevailing :	2 - 5 N m
Temperature range :	-55°C/+150°C

Environmental resistance

Hot strength

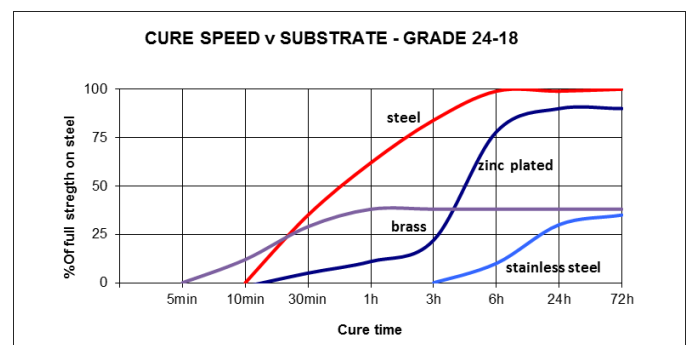
The graph below shows the mechanical strength vs. temperature.

ISO 10964 - Bolt M10 x 20 Zn - quality 8.8 - nut h = 0,8 d at +25°C - pre-torque 5 N m.



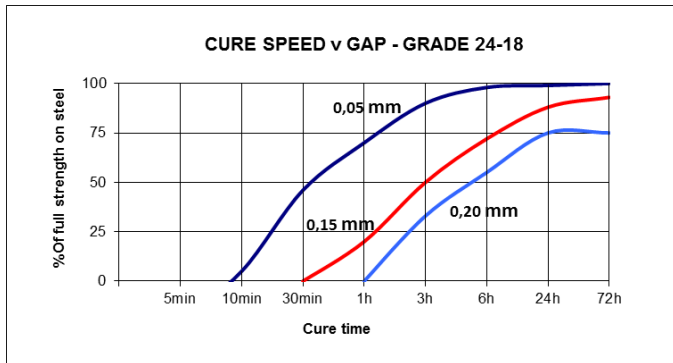
Cure speed v substrate

The graph hereunder shows the breakaway strength development of the product (with time) on steel nuts/bolts M10 x 20 in comparison with several substrates. Tested in accordance with ISO 10964 at + 25°C.



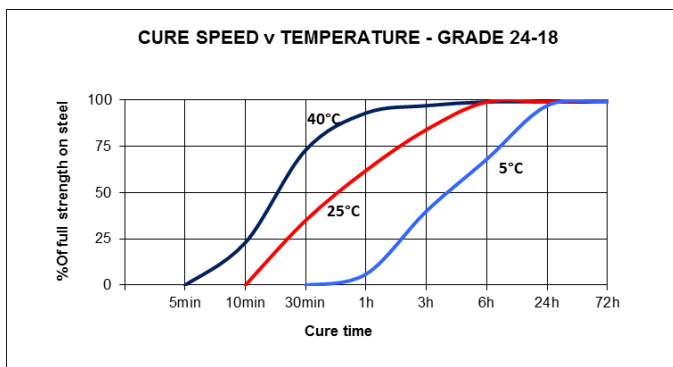
Cure speed v gap

The graph below shows the product shear strength (as %) at different increasing controlled gaps. Steel pins/collars, tested in accordance with ISO 10123 at + 25°C.



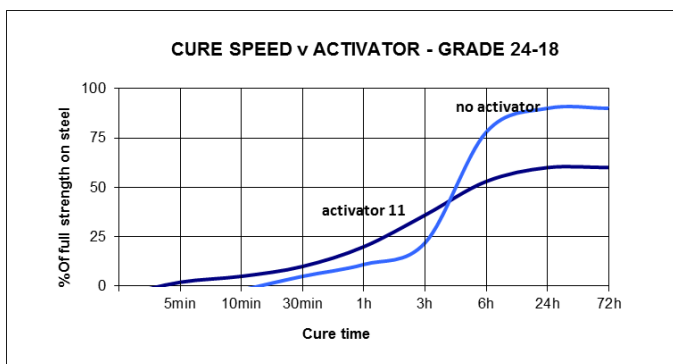
Cure speed v temperature

The following graph shows the breakaway strength of the product (as %) at different temperatures. Steel nuts/bolts M10 x 20, tested according to ISO 10964.



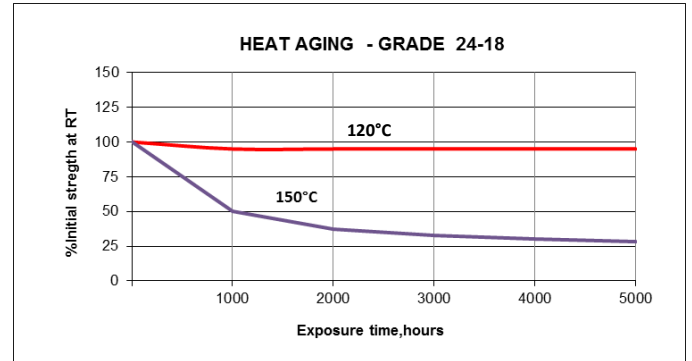
Cure speed v activator

Polymerization could be slowed down by substrate nature, large gaps; cure speed can be improved by applying appropriate activator to the substrate(s). The following graph shows the breakaway strength of the product (as %) and the cure speed developments using our activator 11 compared to the one with no activator. Zn nuts/bolts M10 x 20, tested according to ISO 10964 at a temperature of + 25°C.



Heat aging

The graph below shows the strength resistance behavior as a function of temperature/time. Zn nuts/bolts M10 x 20 - (pre-torque of 5 N m, cured 7 days at +25°C) - aged at temperature indicated and tested at +25°C according to ISO 10964.



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
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Motor oil	125	excellent	good	good
Gear box oil	125	excellent	good	good
Gasoline	25	excellent	excellent	excellent
Diesel fuel	25	excellent	good	good
Water/glycol 50%	87	good	good	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 to bond with Loxeal Cleaner 10. Apply product in enough quantity to fill the gap. Put together parts and wait till product is cured. The product in liquid form may damage coated parts and elastomers and the contact with some thermoplastics may induce stress-crackings non immediately evidenced. For application on non metal parts, 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 pieces with Acetone.

Storage

Keep product in a cool and dry room at +25°C. To avoid contaminations do not refill containers with used product. For more information on applications, storage and handling contact Loxeal Technical Service

Safety, handling and disposal

Consult the 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. Loxeal ensures abiding quality of supplied products according to its own specifics. Loxeal cannot assume responsibility for the results obtained by others which methods are not under Loxeal control. It is user's responsibility to determine suitability for 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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