

Technical Data Sheet

LOXEAL 86-86

Description

Very high temperature (+ 230°C) resistant, high strength anaerobic adhesive for locking and sealing thread connections and fitted parts. High viscosity and thixotropic effect allow larger tolerances. Highly resistant to corrosion, vibrations, water, gases, oils, hydrocarbons and many chemicals. DIN DVGW approved thread sealant for gas (according to DIN EN 751-1 Reg. Nr. NG – 5146BQ0496).

Physical properties

Composition :	anaerobic methacrylate
Colour :	green
Fluorescence :	under blue light
Viscosity (+25°C - mPa s) :	5.000 - 35.000 thixo
Specific weight (+25°C - g/ml) :	1,1
Max diameter of thread/ gap filling :	M56/2" / 0,30 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.

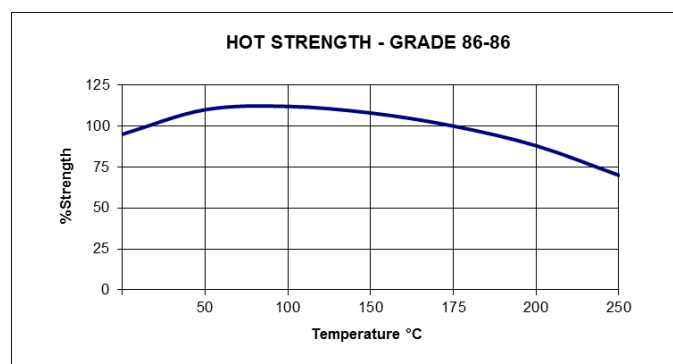
Curing properties

Bolt M10 x 20 Zn - quality 8.8 - nut h = 0,8 d at +25°C :	
Handling cure time :	20 - 40 minutes
Functional cure time :	3 - 6 hours
Full cure time :	24 hours
Locking torque (ISO 10964) :	
- breakaway :	25 - 30 N m
- prevailing :	40 - 70 N m
Shear strength (ISO 10123) :	10 - 20 N/mm ²
Temperature range :	-55°C/+230°C

Environmental resistance

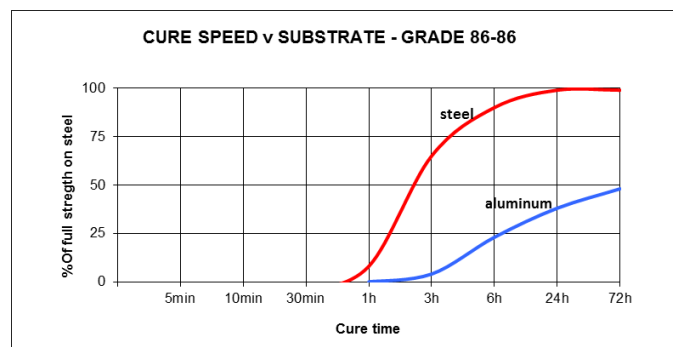
Hot strength

The graph below shows the mechanical strength vs. temperature. Specimens – steel pin/collars tested in accordance with ISO 10123.



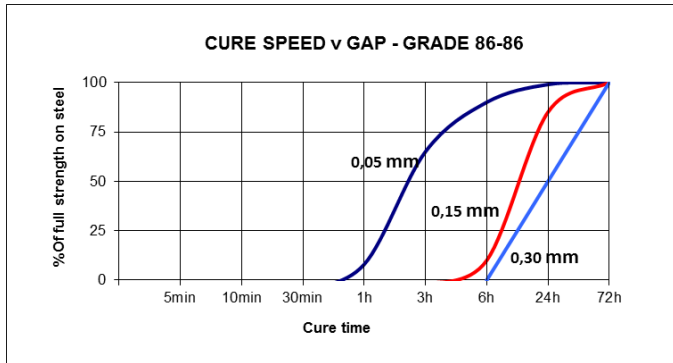
Cure speed v substrate

The graph hereunder shows the breakaway strength development of the product (with time) on steel pin/collars tested in accordance with ISO 10123 at +25°C.



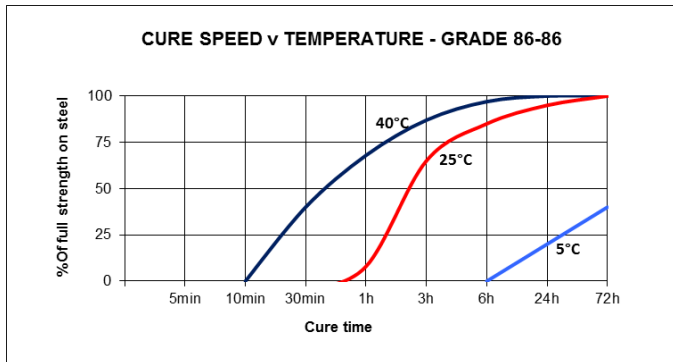
Cure speed v gap

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



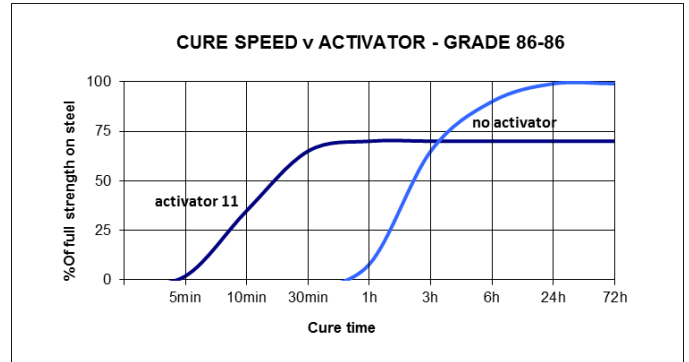
Cure speed v temperature

The following graph shows the breakaway strength of the product (as %) at different temperatures. Specimens – steel pin/collars tested in accordance with ISO 10123.



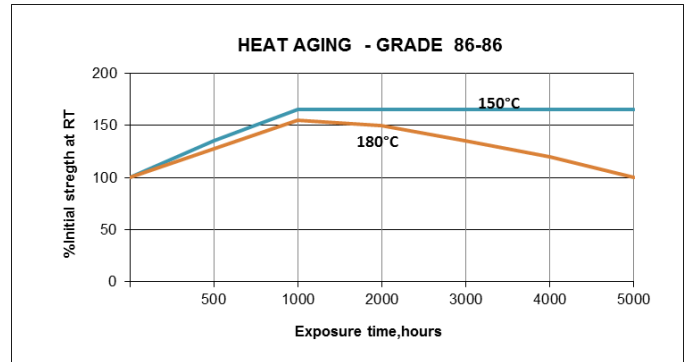
Cure speed v activator

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 ones with no activator. Specimens – steel pin/collars tested in accordance with ISO 10123.



Heat aging

The graph below shows the strength resistance behavior as a function of temperature/time. Specimens – steel pin/collars tested in accordance with ISO 10123.



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	good
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°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. 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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