

## LOXEAL 85-86

### Description

Anaerobic adhesive for metals, high strength, to lock and seal threaded joints.

Approved for gas-tight threaded joints according to EN 751-1 (DIN DVGW).

WRAS approved for contact with wholesome (potable) water. Compliant with UBA (Umweltbundesamt - German Environment Agency) declaration for use with potable water.

The product is certified BAM for use as sealant in the presence of gaseous oxygen up to 20 bar at +60°C.

Can be used on all metals, both in free or forced mating.

Maintains the sealing properties up to +200°C.

High resistance to thermal shock, vibration, water, gas, oils, fuels, refrigerant fluids and other chemicals.

### Physical properties (typical)

Composition:	anaerobic methacrylate
Colour:	green
Fluorescence:	under blue light
Viscosity (+25°C - mPa s):	2.200 - 4.000
Specific weight (+25°C - g/ml):	1,05
Gap filling:	M56/2"/0,30 mm
Flash point:	> +100°C
Shelf life +25°C:	1 year in original unopened packaging

### Curing performance (typical)

Curing rate depends on the assembly gap, substrates 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, even if its use may reduce the final strength.

### Curing properties (typical)

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

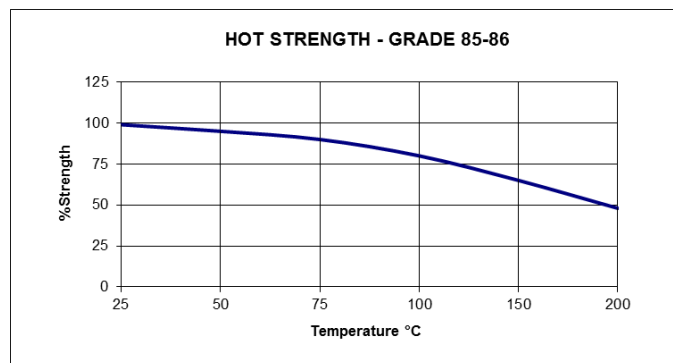
Handling cure time:	10 - 40 minutes
Functional cure time:	6 - 12 hours
Full cure time:	24 - 36 hours
Shear strength (ISO 10123):	15 - 25 N/mm <sup>2</sup>
Locking torque (ISO 10964):	
breakaway:	25 - 35 N m
prevailing:	40 - 55 N m
Temperature range:	-55°C/+200°C

### Environmental resistance

#### Hot strength

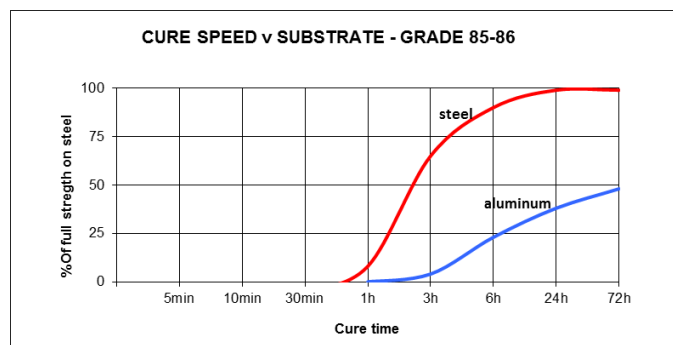
The graph below shows the mechanical strength vs. temperature.

Specimens – steel pin/collars tested in accordance with ISO 10123.



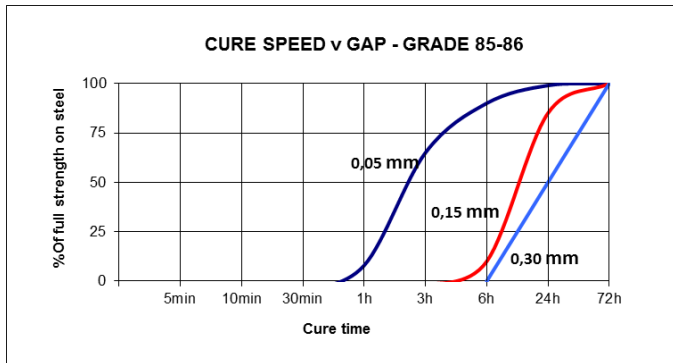
#### Cure speed v substrate

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.



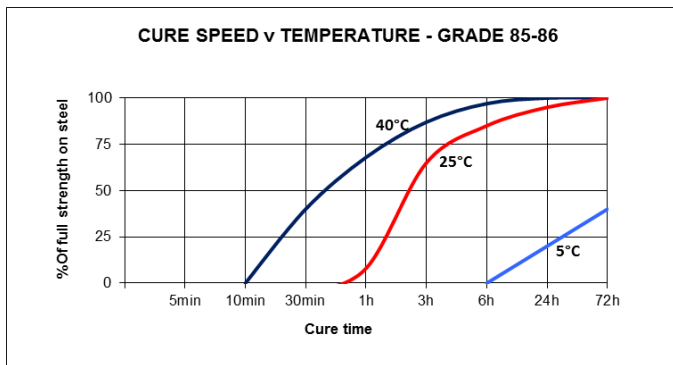
**Cure speed v gap**

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.



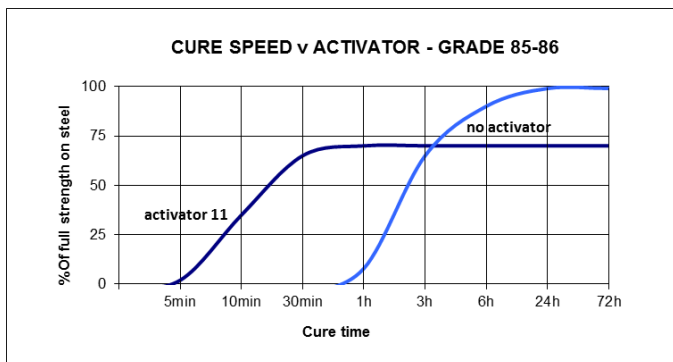
**Cure speed v temperature**

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



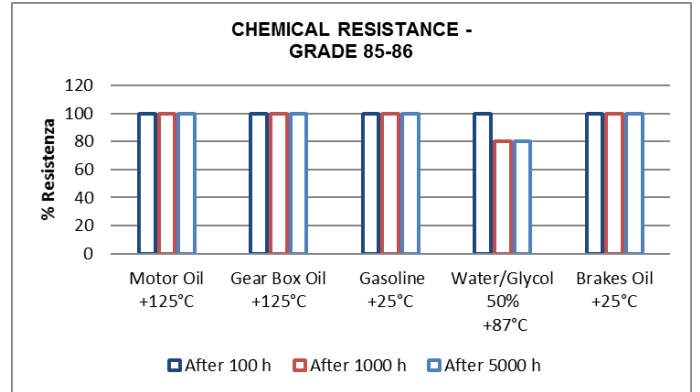
**Cure speed v activator**

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.



**Chemical resistance**

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



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

**General instructions for use**

The product is recommended for use on metal thread joints only. Clean and degrease parts before bonding with Loxeal Cleaner 10. Cut back stepped nozzle to give required bead size. Do not contaminate adhesive with metal. Apply continuous bead circumferentially, 1-2 threads from the leading edge. Ensure sufficient is applied to give a complete seal. Assemble and tighten the joint. Wipe off any uncured excess adhesive from outside the joint. Allow to cure. The time taken to reach a full cure will depend on the metals being used. TIME TO CURE FOR USE WITH WHOLESOME (POTABLE) WATER For Brass, Copper and Cast Iron allow 24 hours at +20°C. For Stainless Steel and Aluminium allow 7 days at +20°C. 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, handling and disposal**

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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