



LOXEAL®

ENGINEERING ADHESIVES

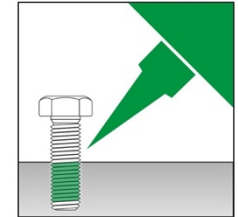
PUT IT ON & GO TO SLEEP



HIGH STRENGTH THREADLOCKING ADHESIVE

LOXEAL 83-54

Technical Data



Overview:

Loxeal® 83-54 High Strength Anaerobic Adhesive for locking and sealing of bolts, nuts, studs and threaded fasteners that do not require dismantling. It can be used in all metals, either in free or forced matings.

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

It provides temperature resistance up to 200°C and high unscrewing strength.

Physical Properties:

Adhesive Type:	Anaerobic Methacrylate
Colour:	Green
Fluorescence:	Under Blue Light
Specific Weight (+25°C g/ml):	1.1
Viscosity at +25°C (mPas):	450 – 650
Gap Filling:	M20 / 0.15 mm
Flash Point:	> +100°C
Shelf Life:	12 months at 25°C in original unopened packaging

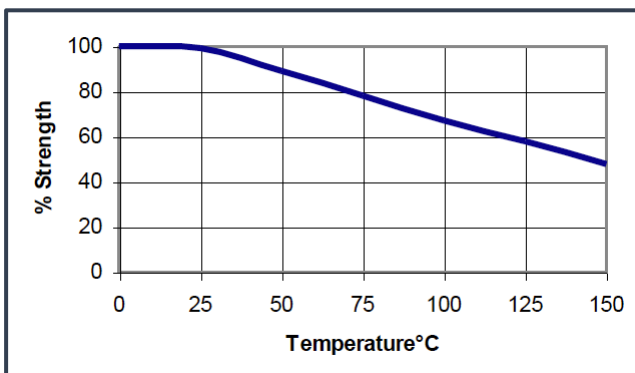
Curing Performance:

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.

ISO 10964 – Bolt M10 x 20 ZN – quality 8.8 – nut h = 0.8 at +25°C – pre-torque 5 NM.



Curing Properties:

Bolt M10 x 20 ZN – quality 8.8 – nut h = 0.8 d at +25°C	
Handling cure time:	10 – 20 minute
Functional cure time:	1 – 3 hours
Full cure time:	5 – 10 hours
Locking torque (ISO 10964):	
- Breakaway:	25 – 35 Nm
- Prevailing:	50 – 65 Nm
Shear Strength (ISO 10123):	15 – 20 N/mm ²
Temperature range:	-55°C to + 150°C

Chemical Resistance:

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

Substance	°C	Resistance after 100 h	Resistance after 1,000	Resistance after 5,000 h
Motor oil	125	Good	Discrete	Discrete
Gear box oil	125	Good	Discrete	Discrete
Gasoline	25	Excellent	Excellent	Excellent
Water/glycol 50%	87	Excellent	Good	Good
Brake oil	25	Excellent	Excellent	Excellent

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

Direction 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 the gap completely, 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 to +250°C, remove any residue of cured product mechanically and clean parts with acetone.

Storage:

We recommend to store this product in a cool and dry place at temperature not exceeding +25°C. To avoid contaminations, do not refill containers with used products. For more information on applications, storage and handling, contact Loxeal Technical Service.

Safety and Handling:

Consult the Safety Data Sheet before use.

Note:

The data contained herein, obtain 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 the 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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