

Threadlocking

Loxeal anaerobic threadlockers are developed to lock threaded fasteners such as bolts, studs, nuts, screws etc. These adhesives cure inside the threaded parts when in contact with metals, in absence of oxygen, creating a tough film that prevents loosening caused by stress, vibration, thermal expansions and contractions. Products are approved according to DVGW, for use in presence of gas according to EN 751-1, and in compliance with UBA declaration.

BENEFITS:

- ▶ Replace washers, spring washers, grovers, etc.
- ▶ Prevent loosening even after strong stress exposure.
- ▶ In the liquid state they lubricate for easier assembly.
- ▶ One-component, easy to use.
- ▶ Available in 3 grades of locking strength:
 - low (easy to dismantle) unscrewing torque is the same as the preload;
 - medium (possible to dismantle) unscrewing torque increase of 25/30% if compared to the torque without adhesive;
 - high (permanent locking).



DIRECTIONS FOR USE:

- ▶ It is recommended to apply the adhesive on clean and dried threads. Clean the threads with Loxeal Cleaner 10 or other suitable solvent.
- ▶ In case of blind-hole, apply the adhesive in the hole, while in case of through-hole apply a bead of product along the thread of the male where it makes part of the joint.
- ▶ The presence of an excess of adhesive outside the joint ensures that the right quantity of product is inside the joint. Remove the excess that in contact with air would remain liquid.
- ▶ Do not apply any mechanical stress before the adhesive achieves its functional strength.

USAGE ESTIMATOR ON FITTINGS

Fitting size		Volume of adhesive per fitting*	how many fittings per bottle?	
(mm)	(pollici)		50 ml	250 ml
3	1/8	0,008	6250	31000
6	1/4	0,02	2500	12500
9	3/8	0,07	700	3500
12	1/2	0,09	500	2800
19	3/4	0,5	100	500
25	1	0,99	50	250

*Assuming a gap of 0.1 mm (1/8"-1/2") and of 0.2 mm (3/4"-1"), and a safety factor of 20%

SUBSTRATES:

- ▶ Metal



It is recommended to use Loxeal Initiator 11 or 18 in combination with Loxeal threadlockers for:

- Surface activation of inactive or passive materials/coatings.
- Filling large gaps.
- Speeding up the cure times (during winter, on passive materials, etc.).

SURFACE CLASSIFICATION FOR ANAEROBIC ADHESIVES USE

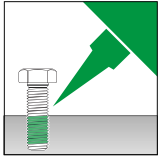
Very active (Very quick cure)	Active (Quick cure)	Inactive (Slow cure)	Passive (Initiator required)
Brass Copper Magnesium	Steel Nickel Iron Aluminum Zinc	Anodized aluminum Cadmium finishing Chrome finishing Passivated metals Stainless steel Titanium	Ceramic Glass Plastic Varnished finishing Lacquered finishing

FOCUS ON RESISTANCE

- LOW STRENGTH**
Easy to dismantle. For joints that need to be dismantled for maintenance or control.
- MEDIUM STRENGTH**
Possible to dismantle with common tools.
- HIGH STRENGTH**
Permanent assembly. Possible to dismantle only heating the parts.



For more information, please contact Loxeal technical support.



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LEGEND *** VISCOSITY HT = HIGH THIXOTROPY - MT = MEDIUM THIXOTROPY - LT = LOW THIXOTROPY
F = FLUORESCENT

APPROVALS LEGEND:



GAS







POTABLE WATER



OXYGEN



FOOD

	GRADE	MAX DIAMETER OF THREAD MAX GAP FILLING		*** VISCOSITY (+25°C mPa.s) (LT-MT-HT)	COLOR	CURING TIME	SHEAR STRENGTH (ISO 10123) (N/mm²)	LOCKING TORQUE (Nm) (ISO 10964)		TEMPERATURE RANGE (°C)	APPROVALS	DESCRIPTION
								BREAKAWAY	PREVAILING			
BASSA RESISTENZA	24-18	M24	0,20 mm	800-1400 MT	PURPLE/F	Handling 15-30 min. Functional 1-3 h	3 - 5	5 - 8	2 - 5	-55 +150	 DVGW as easy-to-dismantle sealant for gas	Low viscosity threadlocker, anti-vibration. Excellent on medium/small screws or fittings that need to be often dismantled or adjusted. High resistance to oils and fuels, refrigerant fluids, gas and chemicals.
	54-03	M24	0,20 mm	900-1500 MT	LIGHT BLUE/F	Handling 10-20 min. Functional 1-3 h	8 - 12	14 - 20	4 - 9	-55 +150		Low viscosity, general purpose for free and forced couplings. Possible to dismantle with normal tools. High resistance to oils and fuels, refrigerant fluids and chemicals.
MEDIA RESISTENZA	55-02	M36	0,25 mm	2500-12000 MT	BLUE	Handling 20-40 min. Functional 6-12 h	9 - 13	18 - 25	9 - 16	-55 +150		Low viscosity, general purpose with a user-friendly formulation. High resistance to water, oils and fuels, refrigerant fluids, gas and chemicals.
	55-03	M36	0,25 mm	1700-9000 MT	BLUE/F	Handling 10-20 min. Functional 1-3 h	9 - 13	18 - 23	9 - 16	-55 +200	 DVGW  WRAS	Medium viscosity threadlocker, with excellent resistance to high temperature (up to +250 °C for short time). Oil tolerant on substrates with little surface preparation. Highly resistant to water, oils and fuels, refrigerant fluids, gas and chemicals.
	55-04	M36	0,25 mm	1500-8600 MT	RED/F	Handling 10-15 min. Functional 1-3 h	10 - 15	20 - 25	40 - 50	-55 +150		Designed to lock large diameter studs. Highly resistant to water, oils and fuels, refrigerant fluids, gas and chemicals.
ALTA RESISTENZA	70-10	M5	0,07 mm	10-20 LT	GREEN	Handling 40-80 min. Functional 3-6 h	5 - 10	5 - 15	2 - 10	-55 +150		Very low viscosity for capillary penetration. Fast, useful to lock pre-assembled joints and to seal diffuse porosity and cracks. Recommended for copper and brass and excellent to seal copper tubes bundles on steel plates. Highly resistant to water, oils, hydrocarbons, methane gas and LPG, compressed air, refrigerant fluids and chemicals.
	70-14	M5	0,07 mm	10-20 LT	GREEN	Handling 10-20 min. Functional 1-3 h	8 - 12	10 - 25	25 - 40	-55 +150		Very low viscosity for capillary penetration. Fast, useful to lock pre-assembled joints and to seal porosity. Highly resistant to water, oils, hydrocarbons, methane gas and LPG, compressed air, refrigerant fluids and chemicals.
	83-52	M20	0,15 mm	450-650 LT	GREEN	Handling 20-40 min. Functional 6-12 h	10 - 20	25 - 35	50 - 65	-55 +150		General purpose with user-friendly formulation. Suitable as retainer for all metals on either free or forced couplings. Highly resistant to oils and fuels, refrigerant fluids and chemicals.
	83-54	M20	0,15 mm	450-650 LT	GREEN	Handling 10-20 min. Functional 1-3 h	15 - 20	25 - 35	50 - 65	-55 +200		High loosening resistance with excellent performance at high temperature, up to +200 °C. Suitable as permanent retainer on either free or forced couplings. Resistant to water, oils, hydrocarbons, refrigerant fluids.
	83-55	M20	0,15 mm	450-600 LT	RED/F	Handling 10-20 min. Functional 1-3 h	15 - 20	25 - 35	50 - 65	-55 +150		Low viscosity, oil tolerant on substrates with little surface preparation. Suitable as permanent retainer for all metals on either free or forced couplings. Excellent resistance to oils, fuels, refrigerant fluids and chemicals.
	85-56	M56 2"	0,30 mm	2500-4500 LT	BLUE/F	Handling 15-30 min. Functional 3-6 h	15 - 25	30 - 40	40 - 50	-55 +150		General purpose, medium viscosity to fill large gaps. Fast, suitable as permanent retainer and thread sealant. Excellent resistance to water, oils, fuels and chemicals.
	86-54	M56 2"	0,30 mm	8000-24000 MT	GREEN/F	Handling 15-30 min. Functional 3-6 h	15 - 25	40 - 50	45 - 55	-55 +150		High viscosity, fill large gaps. Fast, suitable as permanent retainer and thread sealant. Excellent resistance to water, oils, fuels and chemicals.
	86-72	M56 2"	0,30 mm	5000-28000 MT	RED	Handling 20-40 min. Functional 3-6 h	10 - 20	25 - 35	40 - 70	-55 +230	 DVGW	High viscosity, fill large gaps. Suitable as retainer and sealant of threads and cylindrical couplings. High unscrewing resistance and excellent performance at high temperature up to +230 °C. Excellent resistance to gas, oils, fuels and chemicals.