

# Retaining

Loxeal Retaining anaerobic adhesives allow to assembly cylindrical parts (such as bearings, pulleys, pivots, bushes) creating joints with high mechanical resistance, that ensures elevated pull-out strength and transmit high levels of torque.

### BENEFITS:

- ▶ Avoid internal stresses on the parts, caused by forced assembly.
- ▶ Single component, easy to use.
- ▶ Reduce manufacturing time and cost: both the machining tolerances and the finishing on the parts can be less accurate.
- ▶ As a liquid, they lubricate making easier the parts assembly.
- ▶ Wet 100% of the surface ensuring the maximum transmission strength.
- ▶ High temperature resistance.



### USAGE ESTIMATOR ON FITTINGS (when used on threaded joints)

Fitting size		volume of adhesive per fitting*	how many fittings per bottle?	
(mm)	(pollici)	(ml)	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 0,09 mm (3/4"-1"), and a safety factor of 20%

### SUBSTRATES:

- ▶ Metal

### DIRECTIONS FOR USE:

- ▶ It is recommended to apply the adhesive on clean and dried surfaces. Clean the surface with Loxeal Cleaner 10 or other suitable solvent.
- ▶ In case of shrink fit:
  - Heat the female component and apply the adhesive on the male component.
  - Cold the male component and apply the adhesive on the female component.
- ▶ In case of forced press fit: dose the adhesive on both the male and the female components.
- ▶ In case of slip fits: dose the adhesive on the female surface and on the first part of the male, assembly the parts turning them slightly to spread homogeneously the adhesive on the whole surface.
- ▶ Do not provide any mechanical stress before the adhesive achieves its functional strength.
- ▶ When using retainers as sealants, apply a bead of product along the first and the second thread of the male and lock the threaded joints at the required tightening torque.

For more information, please contact Loxeal technical support.



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

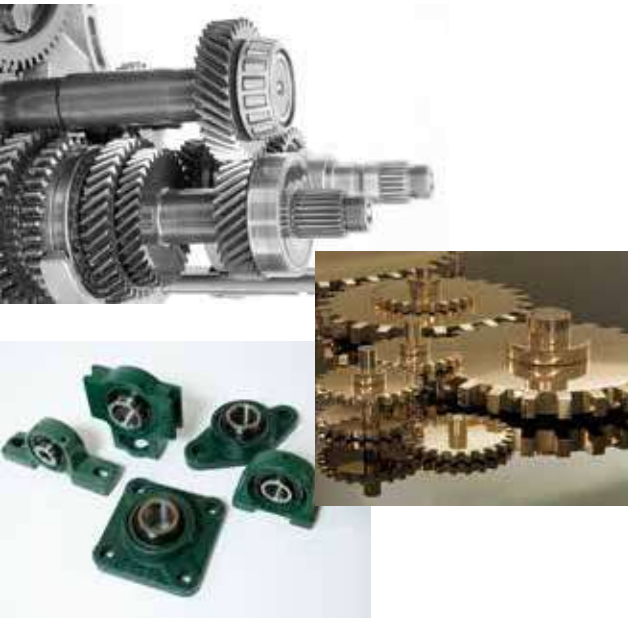
- Surface activation for inactive or passive materials/coatings.
- Filling large gaps.
- Speeding up the cure times (during winter, on passive materials, etc.).

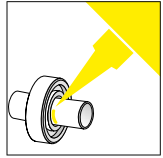
### SURFACE CLASSIFICATION FOR ANAEROBIC ADHESIVES USE

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

### FOCUS ON RESISTANCE

- MEDIUM STRENGTH**  
Possible to dismantle with common tools.
- HIGH STRENGTH**  
Permanent assembly.  
Possible to dismantle only heating the parts.










# Retaining

**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			
MEDIUM STRENGTH	53-11	M20	0,12 mm	400-650 LT	YELLOW/F	Handling 10-20 min. Functional 1-3 h	8 - 12	11 - 20	15 - 25	-55 +150		Low viscosity, designed for precise couplings that can be dismantled with normal tools. Ensure retaining with high resistance to oils, fuels, refrigerating fluids and chemicals.
HIGH STRENGTH	82-13	M12	0,10 mm	120-180 LT	GREEN/F	Handling 30-60 min. Functional 12-24 h	15 - 30	15 - 25	35 - 45	-55 +150		Low viscosity, designed for precise couplings. The delayed fixture time allow parts repositioning. High resistance to water, oils, hydrocarbons, gas and chemicals.
	82-21	M12	0,10 mm	120-180 LT	GREEN	Handling 5-10 min. Functional 1-3 h	17 - 22	24 - 35	50 - 60	-55 +150		Low viscosity, fast, designed for precise couplings either in case interference fit or in case of slip fittings. Ensure permanent retaining of rotors, gears, bushes, bearings, pins and keys, providing high resistance to water, oils and fuels, refrigerating fluids, gas and chemicals.
	82-33	M12	0,10 mm	120-180 LT	GREEN	Handling 5-10 min. Functional 1-3 h	17 - 22	20 - 30	45 - 55	-55 +150		Low viscosity, designed for precise couplings, oil tolerant on parts with little surface preparation. Fast fixture time with excellent resistance to chemicals.
	83-03	M20 3/4"	0,20 mm	800-1200 LT	GREEN/F	Handling 2-5 min. Functional 1-3 h	25 - 35	25 - 35	50 - 70	-55 +200	 Gaz de France  Eurofins	Very fast curing, ensures high performance at high temperature, up to +200°C. Designed for permanent retaining of cylindrical couplings also by automated processes. Highly resistant to water, oils and fuels, gas and chemicals.
	83-21	M20 3/4"	0,15 mm	400-600 LT	GREEN	Handling 2-5 min. Functional 1-3 h	25 - 35	25 - 35	50 - 70	-55 +175	 BAM	Fast, designed for permanent retaining of cylindrical couplings, excellent also as a sealant for threaded joints. Highly resistant to oils and fuels, refrigerating fluids and chemicals.
	85-02	M36 1 1/2"	0,20 mm	3000-4000 MT	GREEN/F	Handling 1-4 min. Functional 1-3 h	25 - 35	30 - 40	55 - 70	-55 +175		Fast, medium viscosity, for cylindrical couplings with high working tolerance. Ensure permanent retaining with good resistance to chemicals.
	85-21	M36 1 1/2"	0,20 mm	2600-3400 LT	GREEN/F	Handling 2-5 min. Functional 1-3 h	25 - 35	30 - 40	55 - 70	-55 +150	 Gaz de France	Fast, medium viscosity, designed as permanent retainer for cylindrical couplings with high working tolerance. Excellent also as threadsealant in presence of chemicals.
	85-61 UV	M36 1 1/2"	0,20 mm	3000-4000 LT	BLUE/F	Handling 5-10 min. Functional 1-3 h	20 - 25	30 - 40	50 - 60	-55 +150		Dual cure: anaerobic and UV. Immediate part fixing is achieved by few second under UV light, while anaerobic curing continues inside the joint until full cure. Suitable as a retainer for coaxial coupling and to create anti-tampering seals. Highly resistant to chemicals.
	86-21	2"	0,30 mm	7000-30000 THIXO	GREEN/F	Handling 1-4 min. Functional 1-3 h	25 - 30	30 - 40	50 - 70	-55 +150		Fast, high viscosity, designed as permanent retainer for cylindrical couplings with high working tolerance. Excellent also as threadsealant in presence of chemicals.
	86-86	M56 2"	0,30 mm	5000-35000 MT	GREEN/F	Handling 20-40 min. Functional 3-6 h	10 - 20	25 - 35	40 - 70	-55 +230	 DVGW	High viscosity, designed as permanent retainer for cylindrical couplings with high working tolerance. Ensures high performance at high temperature, up to +230°. Excellent resistance to water, oils, fuels, gas, refrigerating fluids and chemicals.
89-51	2"	0,30 mm	60000-720000 HT	SILVER	Handling 15-30 min. Functional 3-6 h	25 - 30	40 - 45	15 - 20	-55 +150		Retaining paste for damaged spindled and threads, suitable also as retainer for cylindrical couplings with large gaps. Excellent resistance to water, gas, oils, fuels and chemicals.	