











RETAINERS

Technical Information

Lockfast® Retainers

Anaerobic retaining compounds are a type of adhesive that will cure in the absence of oxygen between close fitting cylindrical metal parts. They prevent corrosion, leaking and loosening caused by vibration, shock and thermal expansion.

	UV Positive	Viscosity Range (cP)	Shear Strength (N/mm ²)	Gap Fill (mm)	Service Temp (°C)	Fixture Time/ Full Cure	Scan QR Code for SDS
 R01 Medium-High Strength Permanent Bond RETAINER <p>A green, medium to high strength, low viscosity retaining compound. Ideal for filling small gaps.</p>	Yes	100-150	>15	<0.1	-54 to 150	<10min/24hr	
 R20 Medium-High Strength High Temperature RETAINER <p>A green, medium to high strength, high viscosity and high temperature resistant retaining compound.</p>	No	5000-12000 Thixotropic	>17	0.25	-54 to 230	<30min/24hr	
 R38 Ultimate Strength Oil Tolerant RETAINER <p>A green, ultimate strength, high viscosity and oil tolerant retaining compound.</p>	Yes	2000-3000	>25	0.15	-54 to 180	<15min/24hr	
 R41 Medium Strength Bearing Fit RETAINER <p>A yellow, medium strength, medium viscosity retaining compound. Ideal for bearing fit applications.</p>	Yes	400-800	>7	0.15	-54 to 150	<15min/24hr	
 R48 High Strength High Temperature RETAINER <p>A green, high strength, low viscosity and high temperature resistant retaining compound. Ideal for clearance or press fit applications.</p>	Yes	400-600	>25	0.15	-54 to 180	<5min/24hr	

Directions For Use

1. For optimum performance surfaces should be clean and free of grease.
2. If the material is an inactive metal consider using activator.
3. Shake the product thoroughly before use. Apply several drops to parts to be bonded.
4. Assemble as required. (see assembly application information on page 2.)
5. To prevent the clogging of the nozzle, do not let the tip touch metal surface during application.

Assembly Application Information

Slip-Fitted Parts

If assembling slip-fitted parts, apply adhesive around the leading edge of the pin and inside the collar, rotating throughout assembly to ensure good coverage.

Press-Fitted Parts

Press-fitted parts must have adhesive applied thoroughly to both mating surfaces and assembled at high pressures.

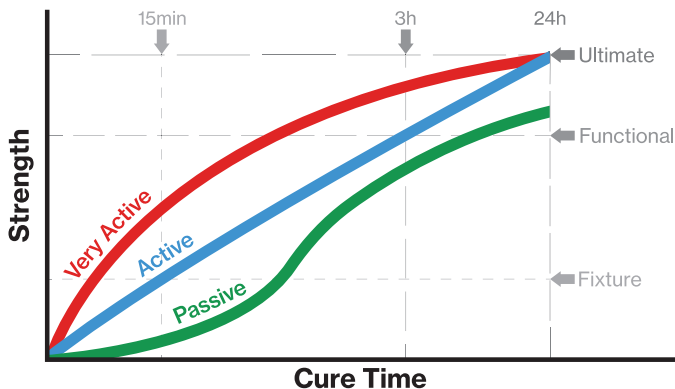
Shrink-Fitted Parts

When using shrink-fitted parts, the adhesive should be applied onto the part in an even, smooth layer. Coat the pin when heating the collar for assembly. The collar should be coated if the pin needs to be cooled for assembly. The material should be applied to the cooled part if both heating and cooling are required. Cooled parts should be kept free of condensation.

Fixture Time vs. Substrate

There may be a difference in fixture speed and strength based on the substrate. As opposed to passive materials such as stainless steel or zinc dichromate, anaerobic adhesives will reach full strength more rapidly with active materials such as mild steel and brass.

See the graph below for an example of how this may affect fixture and functional strength times, ultimate strength may be achieved in 24 hours, or occasionally longer.



The graph depicted is for illustrative purposes and is for guidance only.

Substrate Reactivity

The table below lists substrates by reactivity.

Very Active	Passive	
Brass	High-alloy Steel	Stainless Steel
Copper	Aluminium	Oxide Films
Active	Nickel	Chromate Films
Mild Steel	Zinc	Anodic Coatings
Bronze	Silver	Plastics
Iron	Gold	Ceramics

Fixture Time vs. Temperature

Fixture times will be longer at lower temperatures. It is possible to accelerate the fixture time of assembled parts by heating them or using an activator.

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Fixture Time vs. Bond Gap

Fixture speed of anaerobic adhesives is greatly affected by bond gap size. The size of parts and tolerances determine bond gap. A larger gap between parts can result in a prolonged fixture time.

Fixture Time vs. Activator

When the cure time is too slow or the bond gap is too large, activators can be used to accelerate the fixture time. Activators can reduce bond strength by up to 30%.

Chemical Resistance

The chemical resistance of anaerobic adhesives to various oils and solvents, including motor oil, leaded petroleum, brake fluids, acetone, ethanol, propanol, and water, is exceptional.

Disassembly and Clean-up

Remove with standard hand tools. In circumstances where hand tools do not work, use localised heat, disassemble while hot. To remove cured product use a combination of solvent and abrasion such as a wire brush.

Storage

Store in a cool area and out of direct sunlight. Keep product between 8°C and 21°C to give optimum storage stability.

General Information

This product is not recommended for use in pure oxygen and/or oxygen rich systems and should not be used with chlorine or other strong oxidising materials. Where washing systems are used to clean the surfaces before bonding, it is important to check the compatibility of the washing solution with the adhesive. In some cases these solutions can affect the cure and performance of the adhesive. This product is not recommended for use on certain plastics. **For information on safe handling of this product consult the Safety Data Sheet (SDS).**

SCAN FOR FULL LOCKFAST RANGE

