



march 2015

**Product Description**

Lockfast R38 is designed for the bonding of cylindrical fitting parts, particularly where bond gap can approach 0.25mm. The product is a single component anaerobic, acrylic based product. The product cures when confined in the absence of air between close fitting metal surfaces and prevents leakage and loosening from vibration and shock.

Lockfast R38 offers the following characteristics:

<b>Technology</b>	Acrylic
<b>Appearance</b> (uncured)	Green liquid
<b>Chemical Form</b>	Urethane methacrylate
<b>Cure</b>	Anaerobic
<b>Secondary cure</b>	Activator
<b>Components</b>	Single – requires no mixing
<b>Viscosity</b>	High
<b>Strength</b>	High
<b>Application</b>	Retaining

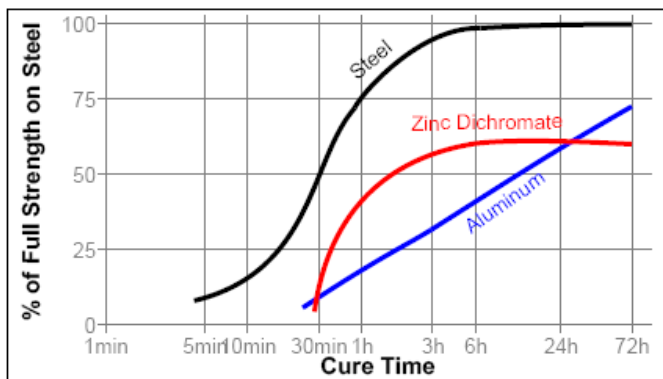
Applications include sleeves into housings/shafts and locking bushings.

**Properties of Uncured Material**

	Typical Value
Specific Gravity @ 25°C	1.09
Viscosity @ 25°C	2000-3000 mPas
Flash Point	See MSDS
Fixture time	10-15 mins

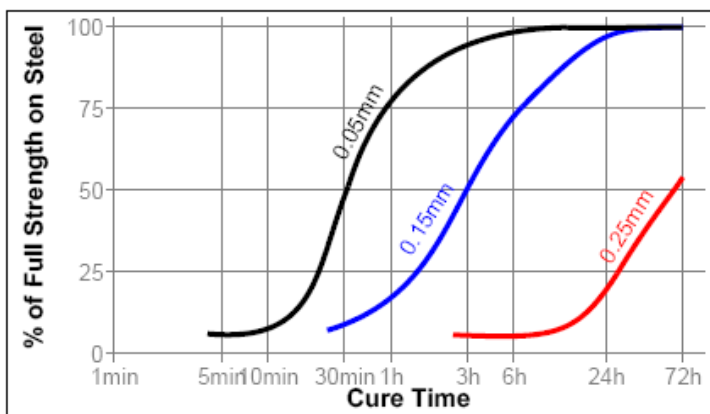
**Cure speed vs. substrate**

The rate of cure is dependant on substrate used. The graph below shows the breakaway strength developed with time on steel collars and pins compared to different materials and tested according to ISO 10123.



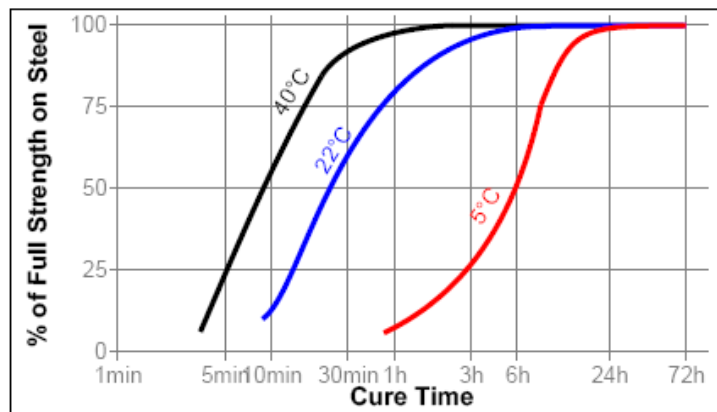
**Cure speed vs. bond gap**

The rate of cure will depend on the bond gap. The graph below shows shear strength developed with time on steel collars and pins at different controlled gaps and tested according to ISO 10123.



**Cure speed vs. temperature**

The rate of cure is dependent on the ambient temperature. The graph below shows the breakaway strength developed with time at different temperatures on steel collars and pins tested according to ISO 10123.



**Cure speed vs. activator**

Where the cure speed is unacceptably long or large gaps are present. An activator can be applied to the surface which will improve cure speed.

**Typical performance of cured material**

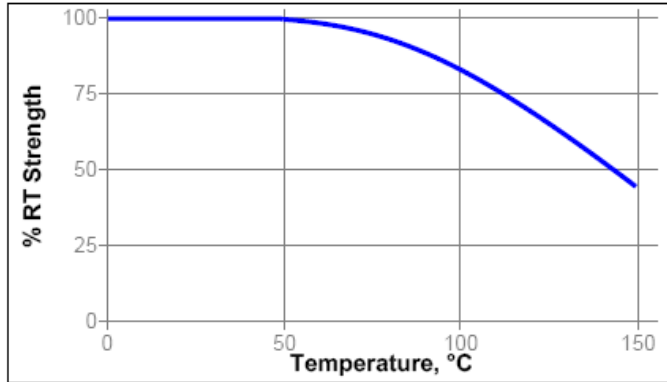
Operating Temperature	Typical Value -54°C - 150°C
(After 24 hr at 20-25 °C)	

	Typical Value
Shear strength steel collars and pins ISO 1010123	>25Nm

**Typical heat resistance**

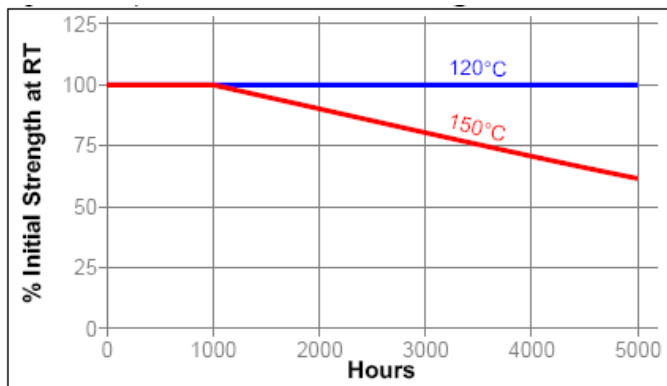
**Hot Strength**

Tested at temperature



**Heat aging**

Aged at temperature indicated and tested at 22°C



**Chemical/Solvent Resistance**

Aged under conditions indicated and tested at 22°C.

Environment	°C	% of initial strength		
		100h	500 h	1000 h
Motor oil (MIL-L-46152)	125	100	100	100
Unleaded Petrol	22	100	90	85
Brake Fluid	22	100	90	80
Water/Glycol 50/50	87	95	80	80
Ethanol	22	100	100	75
Acetone	22	90	90	90

**General information**

This product is not recommended for use in pure oxygen and/or oxygen rich systems and should not be use with chlorine or other strong oxidising materials.

**For information on the safe handling of this product, consult the Material Safety Data Sheet, (MSDS).**

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.

**Directions for use**

1. For optimum performance surfaces should be clean and free of grease (internal and external).
2. If the material is an inactive metal consider using activator.
3. Assemble and tighten as required.
4. For shrink fitted assemblies the product should be applied onto the pin, the collar should then be heated to create clearance for free assembly.
5. For slip fitted, apply product inside of the collar then to the leading edge of the pin, then use a rotating motion in assembly to ensure coverage.
6. For press fitted, apply product to both surfaces making sure of assembly at high press rates.

For disassembly

1. In circumstances where hand tools do not work, use localized heat to bolt or nut, disassemble while hot.

For cleanup

1. To remove cured product use a combination of solvent and abrasion such as a wire brush. .

**Precaution**

1. Use with proper ventilation. Avoid contact with skin and eyes.
2. If contact with skin occurs, rinse with warm water or dissolve gradually with appropriate debonder.
3. Do not try to remove forcibly.
4. If adhesive gets into eye, keep eye open and rinse thoroughly. Seek medical attention immediately.
5. Keep well out of reach of children.

### **Storage**

Keep adhesive in a cool, dry place optimal storage 8°C-21°C. is recommended unless otherwise labelled. To prevent contamination of unused material, do not return any product to its original container. For specific shelf life information, contact Cyanotec Ltd .

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