

**TECHNICAL DATA SHEET FOR LOCKFAST R41**

**PRODUCT DESCRIPTION**

**LOCKFAST R41** is designed for the bonding of cylindrical parts particularly where disassembly is required for servicing. The product cures when confined in the absence of air between close fitting metal surfaces and prevents loosening and leakage from shock and vibration. Applications include bearing retention onto housings and shafts.

**LOCKFAST R41** offers the following characteristics:

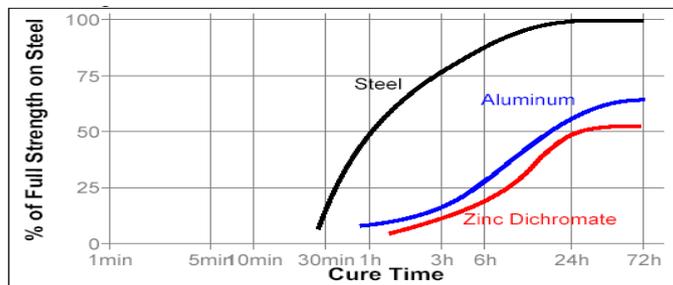
Technology	Acrylic
Appearance (uncured)	Yellow liquid
Chemical Form	Methacrylate ester
Fluorescence	Negative
Cure	Anaerobic
Secondary cure	Activator
Components	Single - requires no mixing
Viscosity	Medium
Application	Retaining
Technology	Acrylic

**PROPERTIES OF UNCURED MATERIAL**

	Typical Value
<b>Specific Gravity @ 25°C</b>	1.07
<b>Viscosity @ 25°C</b>	1200 to 2800mPas
<b>Flash Point</b>	See MSDS
<b>Shear rate 277 s<sup>-1</sup></b>	90 to 180

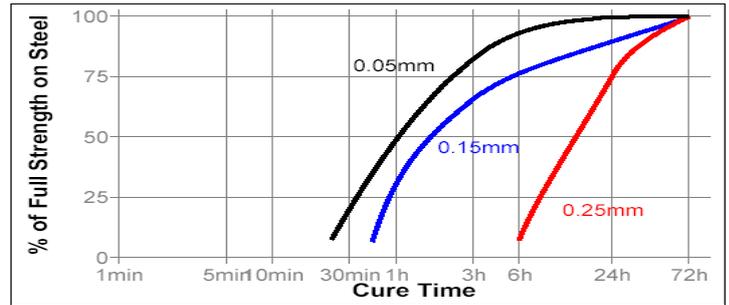
**CURE SPEED VS. SUBSTRATE**

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.



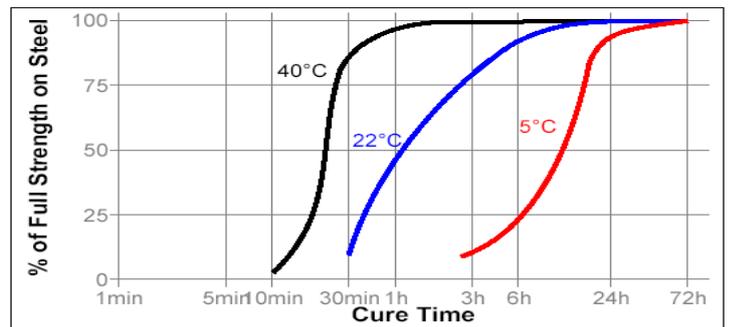
**CURE VS. BOND GAP**

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**

Physical Properties	Typical Value
<b>Coefficient of Thermal Expansion</b>	80x10 <sup>-6</sup>
<b>Coefficient of Thermal Conductivity</b>	0.10

. (After 24 hr at 20-25°C)

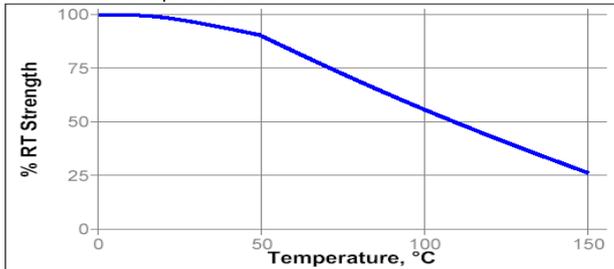
	Typical Value
Compressive shear strength steel collars & pins ISO 10123	N/mm <sup>2</sup> ≥6.50

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**TYPICAL HEAT RESISTANCE**

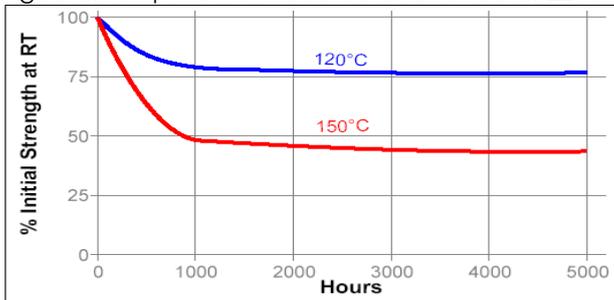
**HOT STRENGTH**

Tested at temperature



**HEAT AGING**

Aged at temperature indicated and tested at 22°C



**CHEMICAL / SOLVENT RESISTANCE**

Aged under conditions indicated and tested @ 22°C.

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

**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. This product is not recommended for use on certain plastics.

**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.
4. Apply several drops to the bolt & nut.
5. Assemble and tighten as required.
6. To prevent the clogging of the nozzle, do not let the tip touch metal surface during application.

**FOR DISASSEMBLY**

1. Remove with standard hand tools.
2. 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 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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