

TECHNICAL DATA SHEET FOR LOCKFAST G18

PRODUCT DESCRIPTION

LOCKFAST G18 is designed for sealing, 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. The product provides resistance to low pressures immediately after assembly of flanges. It seals close fitting joints between flanges and fixed metal faces and will flex with minor movement from the flange.

LOCKFAST G18 CHARACTERISTICS

Technology	Acrylic
Appearance (uncured)	Red
Chemical Form	Dimethacrylate ester
Fluorescence	Positive under UV
Cure	Anaerobic
Cure Benefit	Room temperature cure
Components	Single – requires no mixing
Viscosity	High thixotropic
Application	Sealing

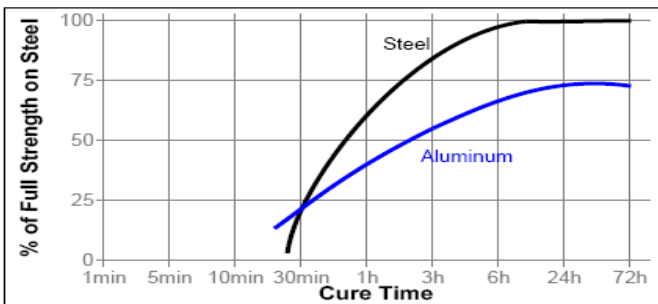
LOCKFAST G18 is used as a form-in-place gasket for applications on rigid flanged connections for example engine casings and gearboxes.

PROPERTIES OF UNCURED MATERIAL

	Typical Value
Specific Gravity @ 25°C	1.13
Viscosity @ 25°C	3000000 4500000mPass
Flash Point	See MSDS
Fixture Time	1 – 2 hours
Operating temp °C	-54°C-150°C

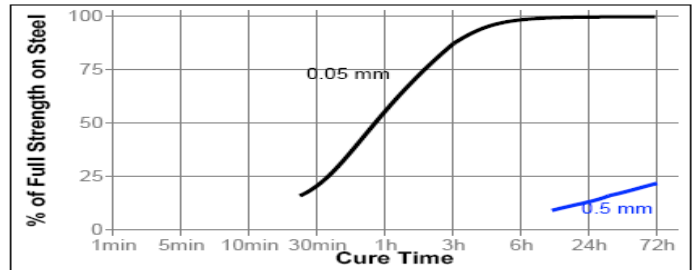
CURE SPEED VS. SUBSTRATE

The rate of cure is dependant on substrate used. The graph below shows the shear strength developed with time on grit blasted steel lap shears compared to different materials and tested according to ISO 4587.



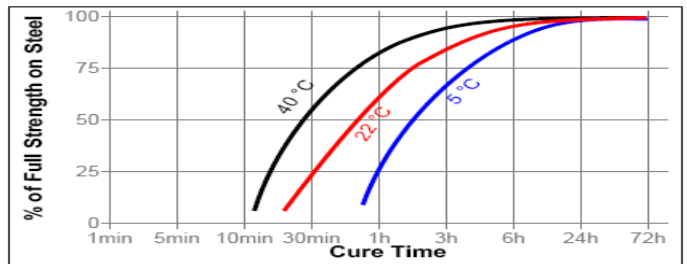
CURE VS. BOND GAP

The rate of cure will depend on the bond gap. The graph below shows shear strength developed with time on grit blasted steel lap shears compared to different materials and tested according to ISO 4587.



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 grit blasted steel lap shears and tested according to ISO 4587.



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 Temp °C	Typical Value -54°C - 150°C
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(After 24 hr at 20-25°C) on M10 steel nuts & bolts)

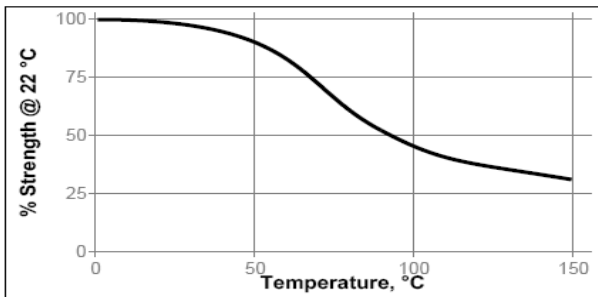
	Typical Value
Lap shear strength steel (grit blasted) ISO 4587	7.5Nm
Tensile strength steel (grit blasted) ISO 6922	8.5Nm

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TYPICAL HEAT RESISTANCE

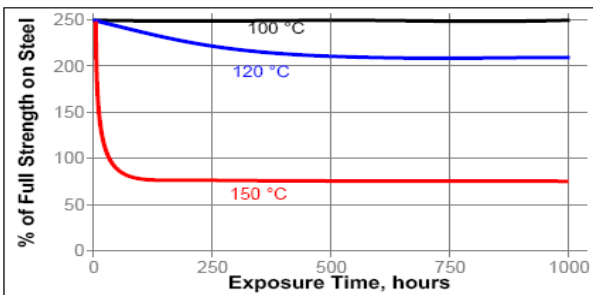
HOT STRENGTH

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
Motor oil (MIL-L-46152)	125	100	160
Gasoline	22	60	60
Water/Glycol 50/50	87	100	100

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.

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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