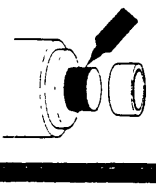
LOCTITE®

Technical Data Sheet

A Loctite Flow Line Product

Retainer

601



146-317

Loctite Retainer 601

Product Description

Loctite Superfast 601 is a single component adhesive especially designed for retaining slipfitte cylindrical parts and supplementing strength of pressfitted cylindrical parts.

Typical Applications

- Shaft and rotors for electric motors.
- Gears, pulleys, sleeves, bushes, etc.
- Bearings.
- Oil seals in housings.
- Pins and dowels.

Product Benefits

- High shear strength contributes to the reliability of pressfitted and slipfitted assemblies.
- Machining costs are reduced, because of the bigger tolerances that are allowed when using Superfast 601.
- Cures quickly and reliably on most metals including plated.
- Seals the parts and prevents leakage of the assembly.
- Prevents fretting corrosion.
- High axial and torsional loads can be absorbed by the assembly.

Performance of Cured Loctite 601

Strength (on steel parts)	*Test Method*	*Typical Values*
Static shear strength τB_2	MIL-R46082A	17.5 – 22.5 N/mm² (2540 – 3260 lbf/in²)
Tensile shear strength	ASTM-D-1002	7.0 – 9.0 N/mm² (1010 – 1310 lbf/in²)
Impact strength	ASTM-D-950	approx. 15 Nmm/mm² (7.0 ft.lb/in²)

Physical Properties of Loctite 601 (Typical Valu s)	
Resin	: Dimethacrylate ester
Viscosity (Haake) 25°C	: 125 mPa.s
Specific gravity	: 1.07
Colour	: Green
Flashpoint (COC)	: >100°C
Shelf life at +5° to +28°C	: Minimum 1 year
Toxicity	: Low (see caution)
Max. gapfilling (measured on dia).	: 0.1 mm (0,004'')

Solvent Resistance
Loctite Superfast 601 has sufficient solvent resis ance for most retaining purposes. Solvents cause loss f strength as indicated hereunder:

Solvent	*% strength retention after 30 days immersion*
Air reference at 87°C	100
Toluene	70
JP-4	100
Alcohol	95
Glycol and water	50
MIL type nr. 6 test oil	100

Percentage of retained strength after 30 days at 37°C, tested at 22°C.

Prevents Fretting Corrosion
Fretting corrosion is a form of damage to the mating surfaces of metal parts, which are subject to slight relative motion under load; it even affects tightly clamped parts.

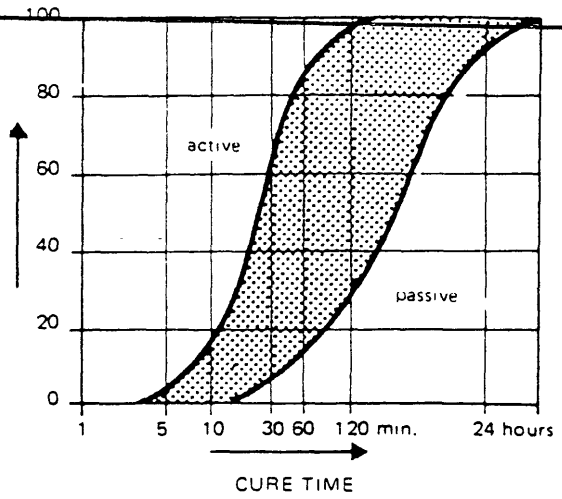
As Loctite Superfast 601 eliminates relative motion at the mating surfaces and excludes oxyge , which permits formation of abrasive iron oxide, no fretting corrosion will occur.

Fast Cure on Industrial Metals

The broad band represents the speed of cure on metals ranging from an active steel surface throug zinc and cadmium plated to a passive stainless ste surface, a series representative of most industrial metals.

When faster cure is desired Activator T may be used. However, the use of activators may reduce the ultimate strength by 15-20%.

To increase the speed of cure without losing strength it is advised to heat one part of the asser ɔly to approx. 120°C, apply the adhesive to the othe part and assembly them. Fixturing will be obtain l in seconds.

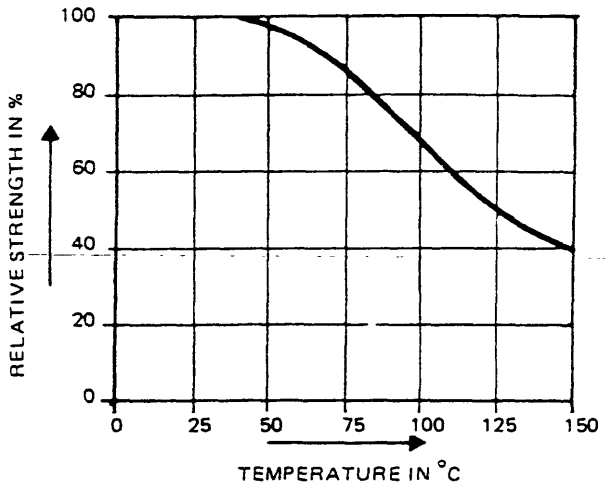


Temperature Performance

Recommended operating temperature range is -55°C to +150°C.

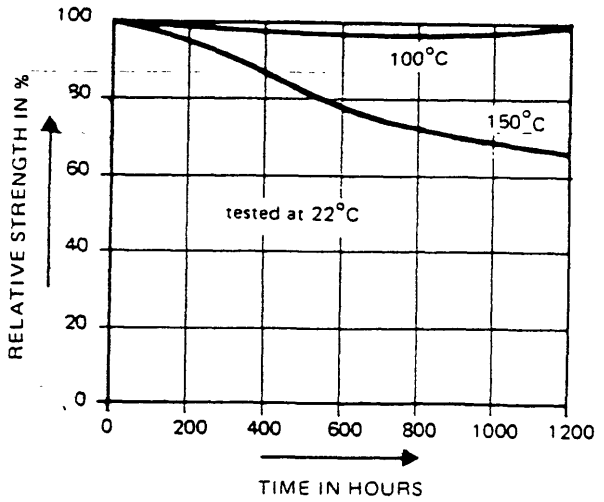
Hot Strength

The graph shows the relative strengths of fully cured cylindrical joints at elevated temperatures.



Heat Ageing

The relative strength after continuous operation a : elevated temperatures is indicated in the graph.



Application Methods
For easy dispensing and exact metering semi-automatic and automatic equipment is available. See Applicator brochure or contact your Loctite representative.

Packaging
Loctite Superfast 601 is available in 10ml, 50ml, 250ml, and 2 litre containers.

Directions for use
Liquid Loctite anaerobic products are single component materials that harden into a polymeric solid in the absence of air or oxygen. Contact with active metal parts or elevated temperatures accelerates the cure speed. If cleaning is necessary, Loctite Superclean Safety Solvent is recommended. Certain Rust inhibitors may affect the cure speed of the product. In such cases, use Activator T.

Plastics
Loctite Anaerobics are non-corrosive and can be used with most materials. Certain plastics e.g. some acrylics, styrene or polycarbonates may be affected by adhesives and cleaning solvents. Careful testing should be carried out before use.

Storage
Store material in original containers with proper air level to provide adequate air space to maintain the liquid state. Maintain between +5°C and +28°C for maximum shelf life.

When stored under these conditions, a minimum of one year shelf life may be expected. Material removed from containers may be contaminated during use. Do not return remaining liquid to original containers.

Specifications
The properties listed in this data sheet are typical and should not be used as a basis for preparing specifications.

Caution
The product can cause sensitisation and skin contact should be avoided.
Remove adhesive from the skin with soap and water. In case of eye contact flush with water and seek medical attention. To avoid contact use the applicator nozzle provided. Automatic applicators are available.

Note
No liability is accepted for any injury loss or damage arising directly or indirectly from the use of the company's products or from the use of information given in our publications, which is intended to serve as a guide only. Customers should satisfy themselves by appropriate trials that the products are suitable for their intended use.

For further information please contact your Loctite Sales Engineer or the Technical Support Group of Loctite UK.

Loctite UK

A division of Loctite Holdings Limited
Watchmead, Welwyn Garden City, Hertfordshire AL7 1JB
Telephone: Welwyn Garden 331277 Telex 261277

11.85