Loctite 6300

Laboratory Data Sheet, October 2011

PRODUCT DESCRIPTION

LOCTITE® 6300 provides the following product characteristic:

Technology	Acrylic
Chemical Type	Dimethacrylate ester
Apperance (uncured)	Green liquid LMS
Flourescence	Positive under UV light LMS
Components	One Component - requires no mixing
Viscosity	Low
Cure	Anaerobic
Secondary Cure	Activator
Application	Retaining
Strength	High

LOCTITE 6300 is designed for the bonding of cylindrical fitting parts. The product cures when confined in the absence of air between close fitting metal surfaces and prevents loosening and leakage from shock and vibration. Typical applications include holding gears and sprockets onto gearbox shafts and rotors on electric motor shafts.

LOCTITE 6300 is part of the Health & Safety anaerobic range. The product is label free. There are no risk or safety phrases associated with either the formulation or its ingredients.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Specific Gravity @ 25 °C 1.1

Flash Point - See MSDS

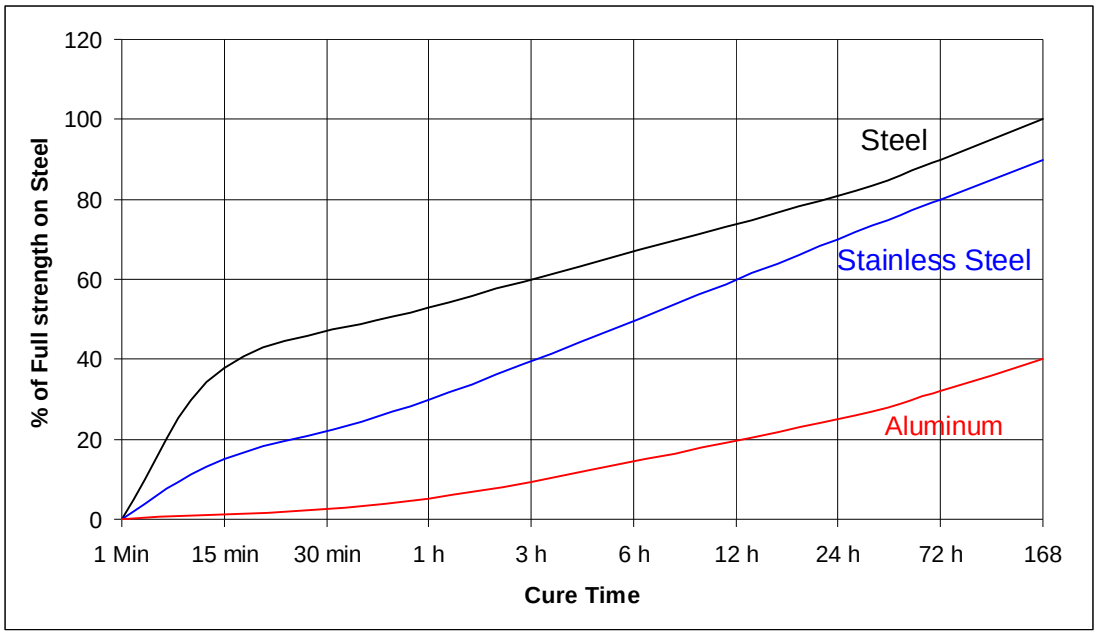
Viscosity, Haake, 25 °C, after 300 s, mPa·s (cP):
Shear rate 129 s-1 200 to 550 LMS

Viscosity, Brookfield - RVT, 25 °C, after 300 s, mPa·s (cP):
Spindle 2, speed 20 rpm 350

TYPICAL CURING PERFORMANCE

Cure Speed vs. Substrate

The rate of cure will depend on the substrate used. The graph below shows the compressive shear strength developed with time on mild steel pins and collars compared to different materials and tested according to ISO 10123.



Cure Speed vs. Bond Gap- Typical performance

Cured for 24 hour @22 ºC (0.15mm gap)
Compressive Shear Strength, ISO 10123
Steel pins and collars N/mm^2 10

Cured for 24 hour @22 ºC (0.25mm gap)
Compressive Shear Strength, ISO 10123
Steel pins and collars N/mm^2 9

TYPICAL PERFORMANCE OF CURED MATERIAL

Adhesive Properties

Cured for 1 hour @22 ºC		
Compressive Shear Strength, ISO 10123		
Steel pins and collars	N/mm^2	>=5
Cured for 72 hours @22 ºC		
Compressive Shear Strength, ISO 10123		
Steel pins and collars	N/mm^2	>=15[LMS]
Cured for 72 hours @22 ºC		
Compressive Shear Strength, ISO 10123		
Stainless Steel pins and collars	N/mm^2	>8
Cured for 24h hours @22 ºC		
Breakaway Torque, ISO 10964		
Black oxide blot and mild steel nut	N.m	30
Cured for 24h hours @22 ºC		
Prevail Torque, ISO 10964		
Black oxide blot and mild steel nut	N.m	25

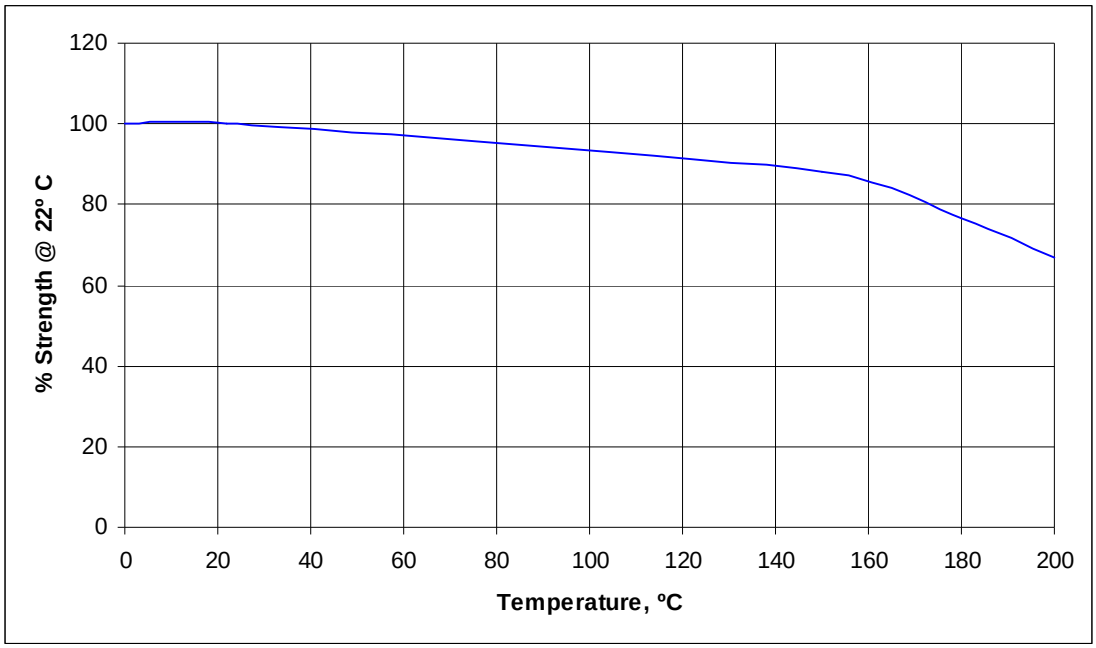
TYPICAL ENVIRONMENTAL RESISTANCE

Cure for 1 week @ 22°C

Compressive Shear Strength, ISO 10123, Steel pins and collars

Hot Strength

Tested at temperature



Heat Aging
Aged at temperature indicated and tested at 22 ºC