

TLB 400 SLT

June 2016

PRODUCT DESCRIPTION

High Performance Silicone Adhesive Sealant With An Adaptable Cure Profile

FEATURES AND BENEFITS

- Fast and adaptable cure
- Cures and bonds at room temperature
- Cure rate is greatly accelerated at elevated temperatures
- Room temperature storage
- Excellent elongation to break
- Thixotropic, designed for automated dispensing as FIPG (Form-In-Place Gasket)



TLB 400 SLT is a high performance two-part silicone sealant designed for automotive applications. TLB 400 SLT offers an adaptable and reliable cure at multiple temperatures, independent of ambient moisture.

TLB 400 SLT is targeting the automotive module market which demands a reliable silicone sealant and adhesive. This two-part silicone material cures and bonds at temperatures from 25°C up to 180°C. At elevated temperatures, the cure rate is very fast, for example at 85°C, TLB 400 SLT cures in 15 minutes. The cure chemistry is compatible with Henkel's BERGQUIST brand of two-part Gap Fillers.

The cure can be adapted to suit current production capabilities, providing the option to use existing product equipment and eliminate additional capital expense. A lower temperature can also be selected to save energy or a higher temperature to save time.

Note: To build a part number, visit our website at www.bergquistcompany.com.

TYPICAL PROPERTIES OF TLB 400 SLT

PROPERTY	IMPERIAL VALUE	METRIC VALUE	TEST METHOD
Color / Part A	Off-White	Off-White	Visual
Color / Part B	Black	Black	Visual
Viscosity as Mixed @ 1/sec (Pa-s)	800	800	ASTM D2196
Density (g/cc)	1.5	1.5	ASTM D792
Mix Ratio	1:1	1:1	—
Working Time at 25°C (minutes) (1)	60	60	—
Shelf Life @ 25°C (months)	6	6	—
PROPERTY AS CURED			
Color	Black	Black	Visual
Hardness (Shore A) (2)	40	40	ASTM D2240
Continuous Use Temp (°F) / (°C)	-76 to 356	-60 to 180	—
Elongation to Break (%)	400	400	ASTM D412
Tensile Strength (psi) / (MPa)	300	2.1	ASTM D412
Breaking Strength (lb/inch) / (kN/m)	25	4.4	ASTM D1458
Lap Shear (psi) / (MPa) (2)	300	2.1	ASTM D1002
ELECTRICAL AS CURED			
Dielectric Strength (V/mil) / (V/mm)	250	10,000	ASTM D149
Dielectric Constant (1000 Hz)	4.3	4.3	ASTM D150
Volume Resistivity (Ohm-meter)	10 ¹²	10 ¹²	ASTM D257
Flame Rating	V-O	V-O	UL 94
CURE SCHEDULE			
	25°C	50°C	85°C
Self-Fixture (~50 psi)	12 Hours	30 Minutes	5 Minutes
50% Adhesion	24 Hours	60 Minutes	10 Minutes
90% Adhesion	72 Hours	4 Hours	15 Minutes
100% Adhesion (3)	7 Days	12 Hours	30 Minutes
1) Dwell time between bead dispensed on substrate, to aluminum lap shear substrates mated together. Cure at RT and test lap shear, targeting <10% reduction in adhesion strength. 2) Cured at 85°C for 15 minutes, aluminum to aluminum, typical 100% cohesive failure. For additional adhesion information based on cure schedule and substrates, see TLB 400 SLT application note. 3) Typically 100% cohesive adhesion failure.			

TYPICAL APPLICATIONS INCLUDE

- Engine control modules
- Modules with large thermal mass
- Modules with temperature sensitive components
- Integrated Brake Control modules
- HEV, EV modules
- Any electronic enclosures

CONFIGURATIONS AVAILABLE

- Available in 400cc, 1200cc and 10 gallon kits

Disclaimer

Note:

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Reference 0.1