



Three Bond International, Inc. Technical Data Sheet

TB1217H – SILICONE SEALANT

Information

TB1217H is a high performance, room temperature vulcanized (RTV) silicone commonly used as a formed in place gasket (FIPG). TB1217H has high elongation, low modulus, good elasticity, engine oil resistance (against SJ oil) and blowout resistance after curing.

Typical Properties

1. Uncured State

Property	Units	Result	Test Method
Appearance	-	Gray	3TS-201-02
Viscosity	Pa s (P)	330 (3300)	3TS-210-08
Specific gravity	-	1.36	3TS-213-02
Tack Free Time	Minutes	5	3TS-219-05
Curing Speed	mm/day	3.0	3TS-222-94

2. Cured Material

Property		Units	Value	Test Method
Hardness		JIS A	51	3TS-215-01
Tensile Strength		MPa (kgf/cm ²)	2.55 (26.0)	3TS-320-01
Elongation		%	550	3TS-320-01
Lap Shear	Steel/Steel	MPa (kgf/cm ²)	2.32 (23.6)	3TS-301-23
	Aluminum/Aluminum		2.34 (23.9)	

3. Engine Oil Resistance

Property		Units	Value	Test Method
Hardness		JIS A	25	3TS-215-01
Tensile Strength		MPa (kgf/cm ²)	2.77 (28.2)	3TS-320-01
Elongation		%	573	3TS-320-01
Lap Shear	Aluminum/Aluminum	MPa (kgf/cm ²)	1.45 (14.8)	3TS-301-23

Engine Oil Immersion Condition: 150°C 100 hr
Engine Oil Grade: Gasoline Engine Oil FF 0W-20 SJ

4. Heat Resistance

Property		Units	Value	Test Method
Hardness		JIS A	51	3TS-215-01
Tensile Strength		MPa (kgf/cm ²)	3.20 (32.6)	3TS-320-01
Elongation		%	450	3TS-320-01
Lap Shear	Aluminum/Aluminum	MPa (kgf/cm ²)	3.07 (31.3)	3TS-301-23

Heat Condition: 150°C 100 hr

5. Blow out Resistance

Clearance Gap	Units	Leaking Pressure	Test Time
0.5 mm	kPa	150	Immediately test after assemble
1.0 mm	kPa	100	After 10 minutes Curing

Flange size: JIS Aluminum Flange, Width: 10 mm, Inside Diameter: 50mm
Gap: 0.5 mm, 1.0 mm
Pressurized Speed: 10 kPa / 15 seconds
Test Condition: 25°C 25%RH

These are typical results and not specifications.