

## TECHNICAL DATA

### ThreeBond 1212

#### Silicone Liquid Gasket

**Three Bond 1212** is a silicone based, one component white coloured liquid gaskets. It sets automatically at room temperature upon exposure to air moisture. No hardeners, activators or heat are required. TB 1211 increases bonding strength while hardening. They begin hardening in 40 minutes at 25°C after application. The resultant rubber-like solids resist both heat and cold, maintains stability and original properties under a wide range of temperature.

#### Features

- Highly resistant to heat, cold, weather
- Excellent electric insulation
- Solvent-less; minimal shrinkage
- Ideal for sealing comparatively large clearances

#### Characteristics

##### Before curing

Items	Unit	Results
Appearance	-	White
Viscosity (Pa.s)	Pa.s	300
Specific gravity (at 25 °C)	-	1.05
Sagness (at 25 °C)	-	Non-sag

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### After curing

Items	Unit	Results
Appearance	Unit	White
Hardness	JIS A	30
Pulling strength	kg/cm <sup>2</sup>	20
Elongation (%)	%	300
Linear shrinkage (%)	%	0.3
Shear Strength (kg/cm <sup>2</sup> ) (Al Plates)	kg/cm <sup>2</sup>	9.5

### Properties (in accordance with JIS-K-6820\*)

#### Pressure Resistance

Temperature	Pressure Resistance (kg/cm <sup>2</sup> )
At room temperature	100
80°C	100
150°C	100
After cold-heat cycle	110

#### Chemical Resistance

Chemical	(Change in weight %)
Water	+1.3
Anti-freeze	-1.81
Gasoline	-15.1
Engine Oil	+5.0
Gear Oil	+1.91

#### Clearance and Pressure Resistance

Clearance (mm)	Pressure (kg/cm <sup>2</sup> )
0.10	2.8
0.25	1.5
0.5	0.6

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TB 1212

### Test Conditions

Pressure media: Turbine oil, 120<sup>0</sup>C.

The pressure was increased at a rate of 0.1 kg/cm<sup>2</sup> per minute, till it reaches 1 kg/cm<sup>2</sup>. Thereafter, the pressure speed was changed to 1 kg/cm<sup>2</sup> at every 20 minutes.

TB 1212 hardens when reacting with the moisture in the air. The curing cycle naturally has a close relation with the thickness of the layer formed, temperature and relative humidity.

20-30 minutes after application at 25<sup>0</sup>C and 50% RH, the surface becomes tack-free and turns into a rubber-like solid in 15-16 hours. However, the maximum bond strength is obtained only after 3 days.

Electric insulation property is obtained in seven days after application. Curing starts from the surface. Hence, when the layer is thick, the cure cycle becomes longer accordingly.

### **Handling Precautions**

- Cut the attached nozzle at a desired position in order to fit your specific position in order to fit your specified condition.
- After use, take off the nozzle and tighten the cap.
- The product tends to react with moisture in the air, therefore squeeze the air out of the container before tightening the cap.
- The product left in the nozzle can be removed very easily after curing.

### **Shelf Life**

12 months when stored at 10 - 25<sup>0</sup>C unopened.

### **Packaging**

Available in packing of 100g, 50g and 30g.

### **Disclaimer**

**For Industrial Use Only**

(Do not use for household purposes)

- The data contained in this report are obtained from experimental results, based on our test methods. We cannot assume absolute responsibility for accuracy and safety. Before using this product, use your own judgement to determine whether or not this product meets the requirements of the application and objectives. This includes the burden of responsibility and hazardous danger. The extent of the guarantee provides replacement for products, which are clearly unsatisfactory.
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