TECHNICAL BULLETIN

ThreeBond

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Three Bond 1207F

RTV-Silicone Liquid Gasket

The product Three Bond 1207F is a single-component, solventfree and non-acid liquid gasket on RTV-Silicone basis (Room Temperature Vulcanizing) with low odour. Within a very short time it forms a rubber-like highly elastic gasket completely adapted to the surface structure of the flange facing. Three Bond 1207F has been designed specifically as an automotive sealant for joints requiring resistance to long-life coolants. Once cured it exhibits high mechanical strength yet good disassembly properties, making it ideal in applications such as water pumps, valve covers, heat exchangers, suction pipes, water inlets and outlets, etc.

1. Features

- Excellent chemical resistance against coolants and engine oil
- Outstanding mechanical and thermal resistance
- Excellent adhesion even to slightly polluted surfaces
- Extremely fast curing
- Instantaneous impermeability for pressure- and fire test.
- Acceleration of the curing process by heat and contact with the medium
- No shrinkage and no generation of corrosive gases
- No corrosion of metal and only very slight reaction on plastics
- Easy disassembly

2. Properties

Properties	Result	Unit
Reaction type	Acetone	
Colour	Silver grey	
SOD-Viscosity at 25°C	170	Pa·s
Density at 25°C	1.50	g/cm²
Touch-proved desiccation *	4 ~ 8	min
Shore hardness	56 A	
Elongation	190	%
Tensile strength	3.7	MPa
Shear strength Al/Al	2.2	MPa
Shear strength Fe/Fe	2.3	MPa
Pressure resistance Fe/Fe	> 10	MPa
Effective temperature range	- 60 ~ 200 (250)	°C
Shelf life at 25°C	11	months

* First skin over time to tack-free time

3. Chemical Resistance

Properties	Result	Unit
Engine oil (130°C x 100 h) ①		
Shore hardness	30 A	
Elongation	320	%
Tensile strength	2.3	MPa
Shear strength Al/Al	1.1	MPa
Coolant (100°C x 100 h) ②		
Shore hardness	38 A	
Elongation	230	%
Tensile strength	1.4	MPa
Shear strength Al/Al	1.6	MPa

① SG 7.5W-30 ② 50 % LLC + 50 % Water

4. Instructions

- Keep the original container tightly closed and store it in a dark, dry, sufficiently ventilated and cool place at a temperature of 5 ~ 25°C.
- Before opening the container let the product reach room temperature as otherwise the formation of dew may result.
- The formation of skin and the hardenability of silicone varies depending upon the thickness of the layer, the ambient temperature and the relative air humidity.
- In order to obtain optimal results, remove grease, dirt and other impurities from the fitting surfaces.
- According to the nature of the joints (width, surface roughness, unevennesses) apply an appropriate quantity of silicone uniformly on one of the fitting surfaces and assemble the parts within 5 minutes.
- If the liquid gasket will be applied by means of our OLGS (On Line Gasket System), this always permits even in case of complicated shapes a uniform, clean and reliable dispensing with a minimum consumption.
- Silicone once transferred into another container should not be returned to the original container. Excess sealant can be easily wiped off with a cloth.

5. Packing

150 g tubes, 310 ml cartridges and 20 kg pails (Special packing on request)