TECHNICAL DATA SHEET

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Three Bond 1104

Liquid Gasket

The product Three Bond 1104 is a single-component liquid gasket on the basis of synthetic rubber developed and patented by ThreeBond as all round liquid gasket for large joint tolerances. Three Bond 1104 is to be applied in viscous condition on one of the fitting surfaces at room temperature and forms a half-dry, elastic gasket with a slightly tacky surface within a very short time. After the assembly of the parts it is completely adapted to the surface structure of the fitting surface. All micro-sized roughnesses, such as tool marks and scratches, are filled in as well as macro-sized unevennesses (waviness of the fitting surface) and thus guarantee absolute conformity. Due to the highly resistant chemical properties and the good cohesion moreover a high solidity is obtained inside the liquid gasket.

1. Features

- Excellent dispensing and application, as Three Bond 1104 is a one-component gasket with good thixotropic properties.
- The curing process can be accelerated by heat treatment.
- The elastic rubber-like liquid gasket excels in good adhesive strength and excellent impact- and vibration resistance.
- Excellent pressure resistance even at extreme temperature.
- Excellent chemical resistance, specially to liquid gas.
- If required, the product can be used in combination with solid gaskets.
- The dilution with solvents such as xylene, toluene and MEK is possible without any problems.

2. Properties

Properties	Result	Unit
Main component	Synthetic rubber	
Main solvent	Trichloroethylene	
Colour	Gray	
Viscosity at 25°C	9.5	Pa·s
Density at 25°C	1.36	g/cm²
Nonvolatile matters	56	%
Condition after curing	Half-dry / elastic	
Surface condition	slightly tacky	
Disassembly	Normal	
Effective temperature range	- 40 ~ 150	°C
Shelf life at 25°C	24	months

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3. Performance

Properties	Result	Unit
Pressure Resistance		
at 25°C	9.5	MPa
at 80°C	8.0	MPa
at 150°C	7.0	MPa
30 cycles (-40°C x 2h / 100°C x 2 h)	9.0	MPa
Chemical Resistance		
Engine oil (100°C x 24h)	+ 1.1	Weight-%
Gear oil (100°C x 24 h)	- 0.9	Weight-%
Benzene (50°C x 24 h)	- 1.7	Weight-%
Water (95°C x 24 h)	+ 4.3	Weight-%
50 % LLC cooling water (95°C x 24 h)	- 0.3	Weight-%
10 % HCL hydrochloric acid (95°C x 24 h)	- 2.2	Weight-%
10 % H_2SO_4 sulphuric acid (25°C x 24 h)	- 0.9	Weight-%
10 % NaOH caustic soda (25°C x 24 h)	- 0.9	Weight-%

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 moisture may result.
- In order to obtain optimal results, remove grease, dirt and other impurities from the fitting surface.
- According to the nature of the joints (width, surface roughness, unevenesses) apply an appropriate quantity of the liquid gasket uniformly on one of the fitting surfaces and assemble the parts within 15 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.
- The product once transferred into another container should not be returned to the original container. Excess material can be easily wiped off with a cloth.

5. Packing

200g tubes and 1 kg cans (Special packing on request)