

TECHNICAL DATA

ThreeBond 1102

Liquid Gasket

Three Bond 1102 is a high viscosity, yellow-colour, and non-drying liquid gasket. It can completely fill all imperfection on surfaces to be sealed, thus keeps it air-and water-tight. It has excellent resistance to oil. Because of its non-drying liquid form, joints can be easily dismantled and cleaned.

Features

- Non-drying type having strong adhesion. By forming a thin layer, it prevents leakage from metal surfaces without adhesive.
- Also effective in preventing leakage from threaded fasteners.
- Apply with brush, oiler or Three Bond Flow Gun.
- Tightens joints 2-4 minutes after application.
- Keeps container air-tight when not used.
- Flammable before curing. Keep away from fire.

Properties & Composition

	Unit	Result	Remarks
Main components		Modified Alkyd Resin	
Diluent		Toluene, MEK	
Appearance		Yellow viscous fluid	
Non-volatile matter	%	79	
Viscosity	mPa.s	6,900 {6900 cP}	25 °C
Specific gravity		1.33	25 °C

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Chemical Test

Tests were made in accordance to specifications of JIS-K-6820. A glass panel with a recess filled with a coat of fluid sealant was air-dried for 24 hours, then baked at 100°C±5°C for 3 hours. Then the test piece was placed in a desiccator and allowed to cool to room temperature. Thereafter, the test piece was weighed and the following tests were applied.

Water Resistance

The test piece was immersed in 90-95°C water using distillation device with a recycle tower attached. It was then washed with methyl alcohol and dried at 65 ±5°C for 24 hours, and thereafter cooled to room temperature. The test piece was checked for change in weight.

Oil Resistance

The test piece was immersed in 95-100°C rubber lubricant No. 2 for 24 hours and subjected to the same testing procedures as described in Section (1).

Gasoline Resistance

The test piece was immersed in 45-50°C automobile gasoline No. 1 for 24 hours, and then the test processed in the same manner as outlined above.

Test Results

	Change in weight (%)
Water Resistance	+ 1.0
Oil resistance	+ 3.4
Gasoline Resistance	+ 0.2

Physical Test

Pressure Resistance

The test was made in accordance with the following parameters.

Flange used:	90 mm outside diameter, 60 mm inside diameter, & 15 mm width.
Clamping bolts	W1/2 inch 6
Clamping force	280 kg/cm surface pressure 160 kg/cm ² .
Surface finish	Turbine oil No. 1 (JIS-K-2213)
Compression speed	5 kg/cm ² /min.
Temperature	Room temperature, 80°C, 150°C.

Working pressure after a cool-heat cycle

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The same apparatus was employed as those used in Pressure Resistance Test. The specimen was applied onto the joint surfaces, which were tightened using the same torque as in the Pressure Resistance Test. The flanges were cooled to $-40 \pm 5^{\circ}\text{C}$ for 2 hours and baked at $100 \pm 5^{\circ}\text{C}$ for 3 hours. Thereafter they were cooled down to room temperature.

Test Results

	Pressure Resistance (kg/cm ²)
At room temperature	95
80 °C	75
150 °C	60
Working pressure after cool-heat cycle	75

Corrosiveness

The sample was coated over the entire polished surface of copper plate, about 25 mm square and 3 mm thick of about 3 mm, then left at room temperature for 24 hours. Remove the sample from the surface of the plate with suitable solvent for checking on occurrence of pitching or etching.

Test Results

Corrosiveness

Nil

Handling Precautions

1. This product is inflammable; please take precautions in storage and handling (refer to MSDS).
2. If using a large amount of this product or using for a long time, it is compulsory to ventilate the area well. If necessary, use mask, non-permeable gloves, protective glasses, ventilate well with local exhaust equipment.
3. Do not inhale or ingest. In the event that this product is ingested, immediately consult physician.
4. Product may settle upon storage, stir well until uniform before using.
5. After use, close the lid tightly, then store. Do not return unused portion, if transferred, to original container.
6. Before use, clean the bonding area to remove grease or dust.
7. Apply with brush, oiler or Three Bond Flow Gun.
8. Tighten joints 2-4 minutes after application.
9. Keep away from children.
10. For industrial use only.

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Shelf Life

24 months when stored at 5 ~ 35°C, unopened. 12 months for (UN).

Packaging

Available in packing size of 200g (tube), 1 kg (can), 3 kg (can) and 210kg (UN)

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.
- We assume responsibility for neither injury nor property damages resulting from the misuse of this product.
- We do not assume responsibility without written notice or contract.