# ThreeBond TB3953

Innovative Elastic Adhesive with High Strength & High Elongation – Even Works as a Sealant!



Your global source for superior products with staying power you can trust.

## **FEATURES**

# Strong adhesion to a wide range of metals, plastics, glass and more.

- After curing, it becomes a rubber-like elastic body with extremely high strength and high elongation among elastic adhesives.
- Light or heat-curing equipment not required.
- Highly airtight and excellent sealing performance for hydrogen gas, etc.
- The gel time after mixing the two liquids is roughly 15 minutes, providing ample working time.
- Curing time can be shortened by heating after bonding. You can control the curing speed according to the situation.

#### AUTOMOTIVE APPLICATIONS

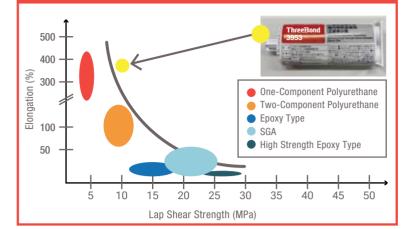
### REQUIREMENTS

- High heat resistance, high durability
- Excellent adhesion of dissimilar materials
- Room temperature curing
- High gas barrier property



Sealing of High-Pressure Hydrogen Tank

#### HIGH ELONGATION + HIGH STRENGTH



 An area where it is technically difficult to achieve both adhesive strength and elongation characteristics in adhesives. (area outside curve)



**On-Board Camera Bracket Fixing** 



#### **OTHER APPLICATIONS**



REQUIREMENTS

- High heat resistance, high durability
- Excellent adhesion of dissimilar materials
- High gas barrier property

Non Automotive Industrial



Sealing of Gas Tanks and Pipes



Non Automotive Recreational





Fixing a Steel Plate of Heat Exchanger



Sign Manufacturing



Fixing Frame Parts of Drones

#### **PRODUCT HIGHLIGHTS**

#### **PROPERTIES**

ThreeBond 3953 is a non-solvent, 1:1 ratio, two-component, room temperature curing, elastic adhesive. The main components are an epoxy resin and a silyl-based special polymer. The gel time allows enough time to secure after applied.

#### **CHARACTERISTICS**

After curing, the product has high adhesive strength, high elongation, good electrical properties and high tensile strength.

	UNIT	EXISTING PRODUCT	TB3953
Appearance	-	Main Agent: Colorless Curing Agent: White	Main Agent: Black Curing Agent: White
Viscosity	Pa∙s	Main Agent: 2.7 Curing Agent: 2.2	Main Agent: 3.0 Curing Agent: 30
Specific Gravity	Main Agent: 1.18 - Curing Agent: 1.00		Main Agent: 1.11 Curing Agent: 0.99
Gel Time	min.	10~15	15~20

	UNIT	EXISTING PRODUCT	TB3953
Hardness	-	A59	A87
Tensile Strength	MPa	3.7	10.0
Elongation	%	140	370
Lap Shear Strength (steel)	MPa	5.2	10.3
T-Peel Strength (steel)	kN∙m	1.4	2.5
Volume Resistivity	Ω∙m	2.8x10 <sup>12</sup>	1.1x10 <sup>13</sup>
Dielectric Breakdown Strength	kV/mm	20.9	23.3

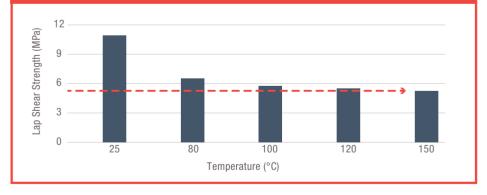
#### **HIGH HEAT RESISTANCE**

Maintains 5 MPa at 150°C . The product is stable in low to high temperatures. There is almost no weight loss from room temperature to 200°C, and it has excellent thermal stability.

#### **PRODUCT SPECIFICATION**

If requested, we will consider other large-volume packaging forms.

#### MAINTAINS 5 MPa at 150°C .



PRODUCT NAME	TB3953		
Packing	25ml/25ml Twin Cartridge, Static Mixer Nozzle		
Volume	46 ml		
Shelf Life	5 Months (-5~40°C)		