

ANCHOR FX 0992BL Black Silicone Gel - Potting

Product Description

FX0992BL is two component silicone for potting. Mixing ratio is A:B = 10:1. It is suitable for potting. This product has excellent leveling, and it can bond with metals and plastics, such as aluminum and PC. After mixing parts A and B, it can deep cure with only a little water. The curing property is more than 90% after one day.

Features

1. Excellent thermal shock resistance, shock resistance, and weather resistance,
2. Stable under -40~200 °C.
3. Fast curing at room temperature.
4. Good surface dryness and condition.
5. Good adhesion strength to inorganic materials and plastics.
6. Suitable for potting which the thickness is below 2 cm.
7. Harmless for the environment and humans.
8. Complies to the 2011/65/EU RoHS regulations.

Typical Uncured Properties

	FX0992BLA	FX0992BLB
Composition	Polysiloxane resin	Hardener
Appearance	Liquid	Liquid
Color	Black	Colorless to light yellow
Viscosity*25°C, cps	3,000~5,000	< 5
	S14 100rpm	S21 100rpm
Specific Gravity @ 25°C	1.0	1.0

*This value is for reference. Please refer to COA for the actual value.

Curing Method

Mix Ratio (A : B)	10 : 1
Pot Life, 25°C, hr	1
Initial Cure Time, 25°C, hr	3
Through Cure Time, 25°C, days	Depends on thickness

Direction of Use

1. It should be applied to a clean surface which is free of dirt, grease or mold release. In many cases, a simple solvent wipe is sufficient.
2. Pour or brush this product onto the substrates, it does not recommend to stir to avoid interfusing the air. This product will be cured with the air. The curing properties depend on its thickness, curing temperature and relative humidity.

3. When casting in thicker components or devices, the resin might not be cured thoroughly at the bottom of the components or devices. This is because the bottom resin is difficult to cure with moisture. It is recommended to extend the curing time so that the moisture can be diffused from top to bottom. Another solution is to cast the components or devices twice. Cast the resin to half the height of components and devices. When the surface is almost dry and tacky, cast the resin a second time.
4. Use this product as soon as possible after opening the original packages. When not using, please replace the lid tightly and store in a cool and dry place.
5. Cure time on the really part will depend upon factors such as part geometry, materials to be bonded, bondline thickness and humidity. Cure schedule should be confirmed with actual production parts and equipment.
6. Cured product will not be harmful to human when it contacts with the skin.

Typical Cured Properties

Hardness (Durometer) ASTM D2240-03, Shore A	30
Hardness (Durometer) ASTM D2240-03, Shore 00	75
Glass Transition Temp.,(TMA), °C	< -50
CTE* (< Tg), µm/m/ °C	150
CTE* (> Tg), µm/m/ °C	202
Water Absorption Ratio (25°C /24hr), %	0.05
Elongation, %	180
Shear Strength, PC vs. PC, kgf/cm ²	25
Shear Strength, ABS vs. ABS, kgf/ cm ²	15
Shear Strength, PMMA vs. PMMA, kgf/ cm ²	43
Shear Strength, PET vs. PET, kgf/ cm ²	22
Shear Strength, PVC vs. PVC, kgf/ cm ²	39
Shear Strength, Cu vs. Cu, kgf/ cm ²	43
Shear Strength, SUS vs. SUS, kgf/ cm ²	36
Shear Strength, Glass vs. Glass, kgf/ cm ²	27
Shear Strength, Al vs. Al, kgf/ cm ²	48
Thermal Conductivity, W/mK	0.30
Surface Resistivity , ohm	1.02*10 ¹⁵
Volume Resistivity , ohm-cm	1.03*10 ¹⁴
Dielectric Constant 100Hz	3.8 (0.02)
Dielectric Constant 1KHz	3.4 (0.04)
Dielectric Constant 1MHz	3.0 (0.05)
Dielectric Strength, KV/mm	14
Degradation Temp, (TGA 5°C loss), °C	400
Weight Loss Ratio @ 100°C, %	0
Weight Loss Ratio @ 150°C, %	0
Weight Loss Ratio @ 200°C, %	0
Weight Loss Ratio @ 250°C, %	0
Weight Loss Ratio @ 400°C, %	5
Weight Loss Ratio @ 500°C, %	40
Temperature Range, °C	-40~200

* CTE: Coefficient of Thermal Expansion

The data contained in this bulletin is provided only as a guide for evaluation/consideration. These material characteristics are typical properties that are based on a limited number of samples tested in the laboratory. We cannot assume responsibility for results obtained by others or whose methods we have no control. It is the user's responsibility to determine suitability for the user's purpose of any product or method. We recommend that each prospective user test his proposed application before repetitive use, using this data as a guide.

Storage and Shelf Life

This product should be kept without any possibility of moisture exposure. Replace the lid immediately after use. This product has a six month shelf life when stored in dark place at 14~34°C in original, unopened containers.

Notice

Some findings indicate a lack of potential for carcinogenicity with the compositions of this product by long term recurrent application to the skin. However, contact with skin is likely to produce mild transient reddening. It is important to remove adhesive from skin with soap and water thoroughly. DO NOT use solvents for cleaning hands. This product is of moderate acute toxicity by swallowing. If swallowed, call a physician. Avoid contact with eyes. In case of contact, flush with water for at least 15 minutes and get medical attention immediately. For specific information on this product, consult the Material Safety Data Sheet.

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