

## EpoPro 126

### Tough, Peel & Impact Resistant Epoxy Adhesive

EpoPro 126 is one component adhesive with exceptional toughness. It cures with heat to form a rigid, heat and chemical resistant bond to metals, glass, ceramics, stone, wood, and many plastics and most other materials. When cured the EpoPro 126 is extremely resistant to impact and thermal shock and provides outstanding peel resistance and excellent cryogenic performance. The EpoPro 126 is easy to use and available in standard black color or in custom colors by request.

#### TYPICAL APPLICATIONS

- Sealing Automotive modulus
- High Performance Bonding
- Vibration dampening

#### HANDLING PROPERTIES

	<u>VALUE</u>	<u>TEST METHOD</u>
Density, g/cm <sup>3</sup>	1.55	ASTM E-201
Viscosity @ 25°C, cps	Thixotropic Paste	ASTM D-2393
Mix Ratio	one component	Calculated
Shelf-life:		
@ 25°C	At least 3 months	
@ 5 °C- 10°C	At least 6 months	
@ -20°C or less	At least 12 months	
<u>Recommended Cure Schedules:</u>	<u>Minimum Cure Time</u>	<u>Optimal Cure Time</u>
@ 120°C	45 minutes	90 minutes
@ 140°C	20 minutes	45 minutes
@ 150°C	15 minutes	25 minutes
@ 160°C	6 minutes	20 minutes
@ 180°C	3 minutes	10 minutes

*Please note that cure times do not include the time require for the parts to ramp up or cool down from the required curing temperature.*

#### PHYSICAL PROPERTIES

	<u>VALUE</u>	<u>TEST METHOD</u>
Color	Black*	Visual
Shore D Hardness	78D	ASTM D-2240
Tensile Lap Shear Strength (Al-Al)	2,800 psi	ASTM D-1102
Flexural Strength, psi	14,200	ASTM D-638
Flexural Modulus, psi	695,000	ASTM D-638
Compressive Strength, psi	16,800	ASTM D-695
Compressive Modulus, psi	480.200	ASTM D-695
Moisture absorption		
24 hours / 7 days / 30 days	0.12% / 0.28% / 0.54%	

Glass Transition Temperature, °C	85°C	ASTM E-381
Coefficient of Thermal Expansion:		ASTM E-381
Alpha 1 (below Tg)	48 ppm/°C	
Alpha 2 (above Tg)	110 ppm/°C	
Thermal Conductivity, W/mK	0.62	ASTM D-2214
Suggested Temperature Range of use	-55 °C to +125°C	

## **ELECTRICAL PROPERTIES**

	<u>VALUE</u>	<u>TEST METHOD</u>
Volume Resistivity @ 25°C, ohm-cm	1.9 x 10 <sup>16</sup>	ASTM D-257
Dielectric Constant, 1 KHz /1 MHz	4.2 / 3.9	ASTM D-150
Dissipation Factor, 1 KHz /1 MHz	0.009/ 0.033	ASTM D-150
Dielectric Strength, volts/mil	≥ 400	ASTM D-149

**NOTE** : Typical Properties determined using EpoPro 8704OC cured for 24 minutes at 150°C. Values are based on laboratory or average production results – not for specification purposes.

## **SUGGESTED PROCESSING GUIDELINES:**

EpoPro 126 can be manually applied by knife, spatula, injection, dipping or pouring. It is suitable for automatic or manual syringe dispensing.

Before each use, stir the containers of EpoPro 126 to ensure that all of the mineral fillers are thoroughly dispersed and have not settled or separated during storage or transportation. For syringes of the EpoPro 126, we suggest storing in a refrigerator or freezer as this will prevent the fillers from separating during storage.

When applying the EpoPro 126, it can be helpful to heat the components that are to be bonded to 40°C -60°C as this will improve the wetting and adhesion of the adhesive. Alternately the EpoPro 126 can be heated to 40°C -60°C and this will reduce its viscosity and increase its flow and wetting on the surface. However, many hours or days of exposure at this temperature may cause the system to start to prematurely gel.

## **STORAGE GUIDELINES:**

Store this material in a clean, cool and dry environment in its tightly closed original container. Products may settle during storage and should be thoroughly re-mixed prior to use. Avoid extended exposure to high humidity. Tightly re-seal after use. If the recommended storage conditions are observed the products will have a minimum shelf-life of 3-12 months from the date of shipment. Protect from exposure to temperatures above 35°C (95°F) as this could cause premature gelling of the adhesive.

## **EXOTHERM WARNING:**

Large masses (greater than 227 grams or 1/2 lbs.) of the EpoPro 126 that are in a concentrated mass (such as a cube or cylinder), can generate large amounts of heat during curing and in extreme cases could produce smoke or flames. This is especially a concern if the surfaces in contact with the material are poor conductors of heat. If exothermic heat might be an issue for your application please contact us to discuss recommendations for mitigating any risks that might occur.

## **HANDLING PRECAUTIONS:**

Mandatory and recommended industrial hygiene procedures should be followed whenever these products are being handled and processed. For additional information please consult the corresponding material safety data sheets.

## **PERSONAL HYGIENE:**

### **EpoPro 126**

**CAUTION!** May cause eye irritation. Prolonged or repeated skin contact may cause irritation, may cause allergic skin reaction. Harmful if inhaled or swallowed. Avoid contact with eyes, skin, or clothing. Wear eye protection and impervious gloves when handling. Wash thoroughly after handling. Avoid breathing vapor or mist. Keep containers closed when not in use. Use only with adequate ventilation. Do not take internally.

## **FIRST AID**

In case of contact:

**Skin** – Immediately wash skin thoroughly with mild soap and water. Remove contaminated clothing and wash before reuse. Destroy contaminated shoes and other articles made of leather.

**Eyes** – Immediately flush eyes with plenty of water for 15 minutes and get prompt medical attention.

**Inhalation** - Remove person to fresh air. Administer oxygen or artificial respiration if necessary. Call a physician.

**Ingestion** - Do not induce vomiting. Dilute with plenty of water and contact physician immediately. Never give anything by mouth to an unconscious person.

## **DISCLAIMER:**

**IMPORTANT:** The following supersedes Buyer's documents. **SELLER / MANUFACTURER MAKES NO REPRESENTATION OR WARRANTY, EXPRESS OR IMPLIED, INCLUDING OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.** No statements herein are to be construed as inducements to infringe any relevant patent. Under no circumstances shall Seller / Manufacturer be liable for incidental, consequential or indirect damages for alleged negligence, breach of warranty, strict liability, tort or contract arising in connection with the product(s). Buyer's sole remedy and Seller's sole liability for any claims shall be Buyer's purchase price. Data and results presented are based on controlled or laboratory work and must be confirmed by Buyer by testing for its intended conditions of use. The product(s) has not been tested for, and is therefore not recommended for, uses for which prolonged contact with mucous membranes, abraded skin, or blood is intended; or for uses for which implantation within the human body is intended

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