



TECHNICAL INFORMATION

技術資料

Tech. No. SFY-161

Fong Yong Chemical Co., Ltd.

SFY-161

Flame Resistance Silicone Rubber for Potting

Features

1. No toxicity, solventless, no odor and no cure by-product.
2. Equal amount of mixing ratio, easy processing.
3. No significant exotherm or shrinkage during curing.
4. Very stable to changes of temperature, stability over wide temperature range (-50 to +200°C) °.
5. Good fire resistance, UL94V0 approval (E120665).
6. Good waterproof for protecting parts from moisture and dust.
7. Excellent thermal conductivity, dielectric, and weather resistance.
8. Re-workable.

SFY-161 is a two-part silicone rubber. It is suitable for batch processing or automated dispensing. With different colors for better distinction, SFY-161A and SFY-161B are dark gray and off-white, respectively. It can be cured in a 1:1 ratio by weight or volume. The cured mixture is a gray high durometer elastomer. The elastomer has excellent thermal conductivity, electrical and waterproof properties, also with excellent fire and weather resistance. Those properties are not significantly affected by the changes of temperature.

Typical Properties :

	SFY-161A	SFY-161B
Appearance	Dark Gray Liquid	Off-White Liquid
Viscosity (25°C, cps)	3,000 ~ 15,000	2,000 ~4,500
Mix Ratio (wt/wt)	1	1
Pot Life (25°C, 60g)	1 hrs	
Cure Condition (100 g)	200 °C : 1hr 150 °C : 2hrs RT: 24hrs	
Hardness (Shore A)	57	
Shrinkage (%)	< 0.01	
Water Absorption (% , 25°C ×24hrs)	< 0.1	
Tensile Strength (psi)	500	
Elongation (%)	70	
Volume Resistivity (Ω • cm)	1.4 ×10 ¹⁴	
Dielectric Strength (KV/mm)	19	
Dielectric Constant 100Hz	6.3	
100KHz	4.7	
Thermal Conductivity (W/mK)	0.55	
Coefficient of Linear Thermal Expansion (ppm/°C)(-30 ~150 °C)	224	
Flame Resistant level	UL 94 V0 approval	

* Curing condition will be varied by heating temperature and thickness.
For heat sensitive parts, it can be cured at room temperature for 24 hours.



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How to use:

1. Prior to use, thoroughly stir parts A and B individually. Be sure no precipitation on the bottom of container.
2. Put parts A and B in a ratio of 1:1 (by weight or by volume) into a clean container with triple volume of the mixture volume.
3. Mix two parts mixture thoroughly; the air entrapment should be removed under vacuum.
4. Apply on target within pot life. Longer heating time should be provided for larger amount or thicker mixture, according to the amount and thickness of mixture.
5. Please refer to the curing condition of the typical properties. For thicker potting, please provide longer heating time to cure completely.
6. For re-working or repairing electronic parts, use sharp knife to cut away the covered elastomer of where needs to be repaired. After repaired, repot again on the repaired place.

Storage and Shelf Life:

1. Avoid from moisture, sunlight and heat. Store at 25°C or lower and dry place. In unopened original containers with appropriate care, shelf life is 12 months.
2. For good storage, avoid from contamination of part A and part B to each other during operation.
3. Prefer to use up in once; if not, seal tightly and keep part A and part B apart after used.

Caution:

1. Avoid from the following materials which will inhibit the cure of this product:

- a. organotin and other organometallic compounds,
 - b. urethanes, amines, and amine-containing materials, and two series compound.
 - c. polysulfones, polysulfides, sulfur, and sulfur-containing materials.
2. If eye contact, immediately flush eyes with large quantity of water for least 15 minutes, and get medical attention.
 3. If skin contact, wipe off with clean and dry cloth or paper, and wash with soap and water.
 4. Do not swallow nor contact foods.
 5. Keep away from children.
 6. This product is for industrial uses only.

The above data offered are based on our laboratory works for customers' references only. The conditions of use, such as mix ratio, well mixed, cure condition (i.e., environment, temperature, humidity, and size), and treatment of target surface, can affect the final results. Therefore, it is imperative to test this product to determine the suitability of the product for its intended uses and applications. Fong Yong Chemical Co., Ltd. assumes no obligation or liability for use and makes no warranty, expressed or implied. Customers are solely responsible for their uses and applications. Welcome to consult our sales representatives for further technical assistance.

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2020/10/15e