



TECHNICAL INFORMATION

技術資料

Tech. No. SO-820

FONG YONG CHEM. CO., LTD.

SO-820

Flame Retardant Silicone Adhesive for Potting

Features :

1. Good leveling.
2. Can be mixed manually or automatically.
3. Good adhesion properties to most materials.
4. Good thermal conductivity 0.54W/mK.
5. UL 94V0 approval (E120665).
6. Use temperature range: -45°C to +150°C.

SO-820 is a two-part good leveling RTV silicone for potting. The mix ratio of 4 to 1 is easy for mixing manually or auto-dispersion machine. Under room temperature, it will react with moisture of air to form a flexible elastomer. Without primer, it exhibits good adhesion properties to most materials, such as transportation tools, boat, airplane, metals, glass, ceramics and electronic devices. Excellent flame retardant properties is approved by UL94V0. Its good thermal property at 0.54W/mK increases heat release out from electron elements to preserve their performance. It also exhibits excellent dielectric properties, suitable for electric and electronic devices as waterproof sealant.

Typical properties :

Method	Item	SO-820A	SO-820B
Naked eye	Appearance	Liquid	Liquid
Naked eye	Color	Black or White	Light Yellow Translucent
ASTM D-2196	Viscosity (25°C, cps)	50,000	40
ASTM D-792	Specific density (25°C)	1.57	0.96
-	Mix ratio (wt/wt)	4 : 1	
ASTM D-2196	Initial mixed viscosity (25°C, cps)	3,000	
ASTM D-792	Mixed Density (25°C)	1.39	
	Pot Life (25°C, 100g)	20 mins	
	Curing time (25°C, 3mm)*	24 hrs	
Naked eye	Cured appearance	Black or white elastomer	
ASTM D-2240	Hardness (Shore A)	30	
ASTM D-149	Dielectric strength (KV/mm)	20	
ASTM D-257	Volume Resistivity ($\Omega \cdot \text{cm}$)	1×10^{14}	
ASTM D5334	Thermal Conductivity (W/mK)	0.54	

*Curing time should be adjusted depends the temperature, humidity and thickness.



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How to use:

1. Clean target surface using solvent for free of dust and oil. Do not use soap or detergent.
2. Prior to use, premix SO-820A and SO-820B thoroughly, respectively.
3. Weigh the desired amount of SO-820A and SO-820B in the ratio of 4 to 1 (by weight) into a clean container. Mix thoroughly; then vacuum to de-air.
4. Apply on target during pot life. Gently pour the mixture on target, avoid trapping air. Vacuum to de-air if air is incorporated into the mixture while pouring.
5. For thicker potting, allow longer curing time. Customers should test their own condition for use.

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 9 months for A part, and is 6 months for B part.
2. For good storage, avoid from contamination of A part and B part to each other during operation.
3. B part can react very easily with moisture; keep away from water and humid air.
4. If can not use-up in once, seal tightly and avoid from contamination of A part and B part to each other after used.

Caution:

1. Adequate ventilation is recommended during application and curing.
2. Avoid contacting eyes. In case of eye contact, immediately flush eyes with large quantity of water for least 15 minutes, and get medical attention.
3. In case of 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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