

# ALPHA<sup>®</sup> HITECH<sup>®</sup> SM42-120P

## Surface Mount Adhesive

### DESCRIPTION


**ALPHA HiTech SM42-120P** is a one component, fast curable surface mount adhesive designed for screen print and dispensing application.

READ ENTIRE TECHNICAL DATA SHEET BEFORE USING THIS PRODUCT

### FEATURES AND BENEFITS

- Excellent thermal resistance
- Excellent adhesion
- Excellent workability
- Non – Sagging
- Complies with RoHS Directive EU/2015/863
- Halogen Free

### APPLICATION GUIDELINES

Storage	Thawing	Application	Curing
1. Store at 1 to 10 °C to guarantee product stability  2. Upright Position, tip facing the bottom  	1. Remove the syringe from the refrigerator  2. Set aside at room temperature for 2 hours.  3. Do not open the cap before the product is sufficiently thawed.  4. To prevent contamination of unused product, do not return any material to its original container.	<b>ALPHA HiTech SM42-120P</b> can be effectively screen printed at room temperature condition. It is also applicable for the dispensing process.	For full property development, cure at 120 °C and hold for a minimum of 120 seconds or at 150 °C and hold for a minimum of 80 seconds (convection oven).

**TECHNICAL DATA**

Category	Tentative Specification
<b>Typical Uncured Material Properties</b>	
Product Name	<b>SM42-120P</b>
Chemistry	Epoxy
Appearance	Red Paste
Viscosity (Malcom PC-10A, 30rpm @25 °C, Poise)	550 to 700
Specific Gravity	1.2 to 1.4
Thixotropic Index	≥ 3.0
Pot Life @25 °C, days	7
Shelf Life @1 to 10 °C, months	6
Shelf Life @25 °C, days	14
Available Packaging	20cc, 30cc syringes; 300cc cartridge
<b>Typical Cured Materials Properties</b>	
Glass Transition (T <sub>g</sub> ), °C via DSC	110 ± 10
CTE (α <sub>1</sub> ), <T <sub>g</sub> , ppm via TMA	65 ± 10
CTE (α <sub>2</sub> ), >T <sub>g</sub> , ppm via TMA	190 ± 20
Corrosion, 96-hr @40°C, 95%RH	None
Moisture Absorption, 24-hr @H <sub>2</sub> O/25 °C, wt%	≤ 1.0
Insulation Resistance, 96-hr @85 °C, 85%RH	≥ 1 X 10 <sup>12</sup>
Hardness (Shore D)	80 to 90

## SAFETY & WARNING

It is recommended that the company/operator read and review the Safety Data Sheets for the appropriate health and safety warnings before use. **Safety Data Sheets are available.**

## CONTACT INFORMATION

[www.macdermidalpha.com](http://www.macdermidalpha.com)

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Also read carefully warning and safety information on the Safety Data Sheet. This data sheet contains technical information required for safe and economical operation of this product. READ IT THOROUGHLY PRIOR TO PRODUCT USE. Emergency safety directory assistance: US 1 202 464 2554, Europe + 44 1235 239 670, Asia + 65 3158 1074, Brazil 0800 707 7022 and 0800 172 020, Mexico 01800 002 1400 and (55) 5559 1588

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