ALPHA® HITECH® UP44-5311F

Ultraviolet Cure Encapsulant

DESCRIPTION

ALPHA HiTech UP44-5311F is a one-component UV cure system. It is designed to improve the attachment strength of solder joints by encapsulating the material over the chips or other components. It prevents chips and IC devices from dropping out and cracking. **ALPHA HiTech UP44-5311F** has the special property of appearing as fluorescent blue light when exposed to black light.

READ ENTIRE TECHNICAL DATA SHEET BEFORE USING THIS PRODUCT

FEATURES & BENEFITS

The balance set of features and benefits from this material are:

- Excellent Workability
- Fast Cure
- Excellent Moisture Resistance
- Excellent Visible Inspection process
- Halogen Free
- Complies with RoHS Directive 2011/65/EU

APPLICATION GUIDELINES

Storage	Thawing	Application	Curing
1. Store at 1 to 10 °C to guarantee product stability. 2. Upright Position, tip facing bottom  3. Product is light-sensitive. Exposure to daylight, UV light and artificial lighting should be kept to a minimum.	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.	**ALPHA HiTech UP44-5311F** can be effectively dispensed at room temperature condition.	For full property development, cure under Metal Halide Lamp at 300mW/cm^2, 365nm and hold for a minimum of 10 seconds.

TECHNICAL DATA

Category	Tentative Specification
Typical Uncured Material Properties	
Chemistry	Urethane Acrylate
Appearance	Translucent Paste
Viscosity (RVDV-II Brookfield #5, 30rpm @25 °C, cP)	3,000 to 8,000
Specific Gravity	1.0 to 1.2
Pot Life @ 25 ºC, days	7
Shelf Life at 1 to 10 ºC, months	6
Available Packaging	10cc, 30cc syringe
Typical Cured Materials Properties	
Glass Transition (Tg), °C via TMA	25 ± 5
CTE (α_1), <Tg, ppm	90 ± 10
CTE (α_2), >Tg, ppm	230 ± 20
Hardness (Shore D)	15 to 25

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

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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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