

# ALPHA® HiTech™ EN21-4210 Series


## Solder Joint Strengthening Encapsulants

### DESCRIPTION

**ALPHA HiTech EN21-4210 Series** is a one-component epoxy system designed to improve the attachment strength of solder joints by encapsulating the material over the chip component. It prevents chip, IC devices from dropping out. For Glob Top, it protects the chip/die from cracking. Users of this material can secure the following balanced set of the features and benefits from this material:

- Excellent Impact Bending
- Excellent Drop Shock
- Excellent Impact Resistance
- Halogen Free
- Impart Water Proofing Property
- Complies with RoHS Directive 2011/65/EU
- Available in Pale Yellow and Fluorescent colors

### APPLICATION

Storage	Thawing	Application	Curing	Safety
1. Store at 1-10°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 EN21-4210 Series</b> can be effectively screen printed at room temperature condition.	For full property development, cure at 150°C and hold for a minimum of 10 minutes (convection oven).	While <b>ALPHA HiTech EN21-4210 Series</b> is not considered toxic, its use in typical production processes will generate a small amount of reaction and decomposition vapors. These vapors should be adequately exhausted from the work area. Consult the SDS for additional safety information. The most recent version of the SDS is available from <a href="http://AlphaAssembly.com">AlphaAssembly.com</a> .

# ALPHA<sup>®</sup> HiTech<sup>™</sup> EN21-4210 Series

## Solder Joint Strengthening Encapsulants

### TECHNICAL DATA

Category	Specification
<b>Typical Uncured Material Properties</b>	
Chemistry	Epoxy
Appearance	Pale Yellow (EN21-4210); Fluorescent (EN21-4210F)
Viscosity (Malcom PC-10A, 30rpm @25°C, cP)	8,000 – 15,000
Thixotropic Index	≥ 3.0
Specific Gravity	1.1 – 1.2
Pot Life @ 25°C, days	3
Shelf Life at 1 – 10°C, months	6
Available Packaging	10cc, 30cc, 50cc syringe
<b>Typical Cured Materials Properties</b>	
Glass Transition (T <sub>g</sub> ), °C via TMA	50 ± 5
CTE (α <sub>1</sub> ), <T <sub>g</sub> , ppm	65 ± 15
CTE (α <sub>2</sub> ), >T <sub>g</sub> , ppm	210 ± 25
Hardness (Shore D)	75 - 85
Corrosion, 96-hr @40°C, 95%RH	None
Moisture Absorption, 24-hr @H <sub>2</sub> O/25°C, wt%	≤ 1.0
Insulation Resistance, 168-hr @40°C, 90%RH	>1 x 10 <sup>8</sup>

### CONTACT INFORMATION

To confirm this is the most recent issue, please contact Alpha Assembly Solutions

AlphaAssembly.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 directory assistance Chemtrec 1 - 800 - 424 - 9300.

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