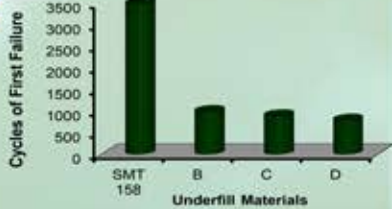


# Underfill Materials



- Room Temperature Underfilling
- Fast Flow
- Fast Low Temperature Cure
- Full Compatibility With Lead-Free Processes
- Outstanding Reliability

## Product Description

SMT 158 capillary underfill is a combination of capillary flow and no-flow underfill, rapid curing, fast flowing liquid epoxy which can be used as a underfill for chip scale package, ball grid array devices, package on package and land grid array and some flip chip application. It is also suitable for bare chip protection in a variety of advanced packages such as memory cards, chip carriers, hybrid circuits and multi-chip modules. It is designed for high production and friendly environment where process speed and mechanical shock are the key concern.

## YINCAE Advanced Materials, LLC

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www.yincae.com

Worldwide Service and Sales  
Organization  
info@yincae.com

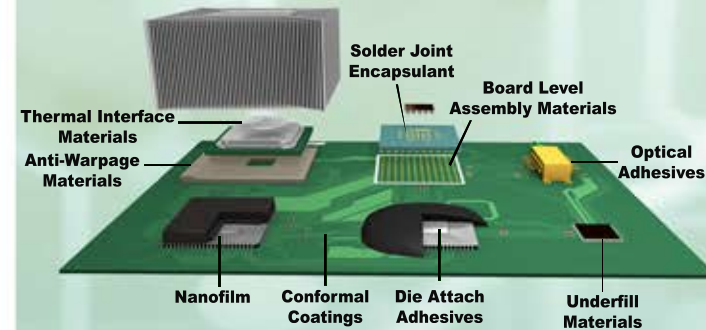
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YPB-004 (Version 12/2016)



INNOVATION AT ITS BEST



### • THE GLOBAL LEADER

-Used in BILLIONS of Major Products by Industry Leaders

### • UNLIMITED INDUSTRY APPLICATIONS

-Aeronautic, Astronautic, Automotive, Computers, Smartphones...

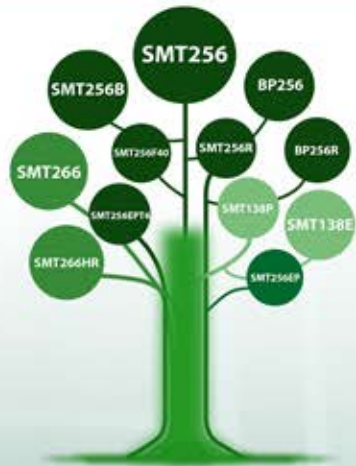
### • HIGH CUSTOMER LOYALTY

-Customer Approved by Major Product Brands

SOLDER JOINT ENCAPSULANTS  
UNDERFILL MATERIALS

*Preferred by global leaders in the  
electronics manufacturing industry*

# YINCAE<sup>®</sup> Solder Joint Encapsulant Family



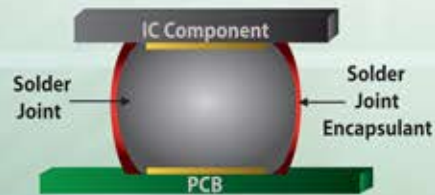
**Solder Joint Encapsulants**

The YINCAE<sup>®</sup> Solder Joint Encapsulant Series is a family of microchip assembly and ball attachment adhesive products that are used to enhance solder joint reliability and eliminate solder joint cracking in CSP, BGA, flip chips and POP microchip applications. They remove metal oxide and allow individual solder joints to be formed, encapsulated by 3-D polymer network. The resulting solder joint bond is 5 to 10 times stronger than that of conventional underfill. These products are specially engineered for use in lead-free, Sn/Pb and Sn/Bi processes.

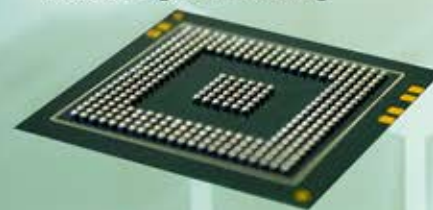
Several products are available in the series, each is formulated to meet specific product design parameters. The SMT256 products are designed for dip or print applications,

applications, whereas the SMT266 products are designed for automated jetting applications during assembly (and can also be brushed on during rework). A Dip Paste product with similar performance properties is also available. All products in this series provide a perfect solution for customers looking to strengthen the solder joint assembly and eliminate underfilling in a 100% reworkable manner.

## Application of Solder Joint Encapsulant

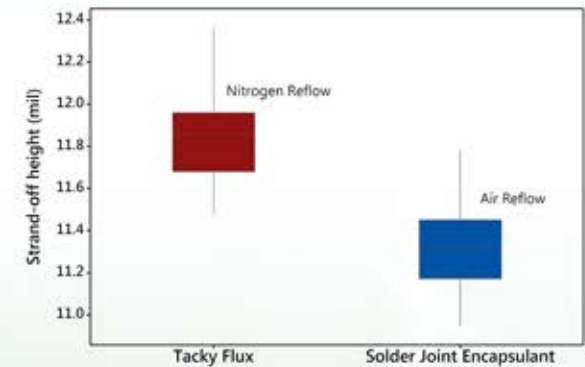


**Microchip Assembling**

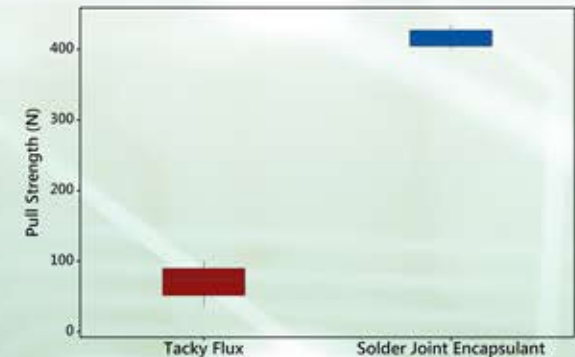


**Ball Attachment**

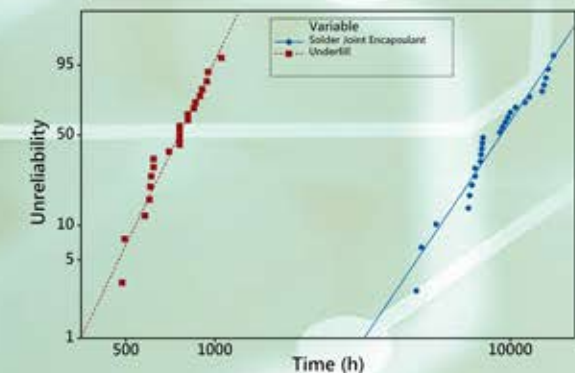
Product	Product Application	Reflow Peak Temp. (°C)
SMT 256	High-temperature applications e.g. Pb free	230-260
SMT 256B	High-temperature applications e.g. Pb free (Black)	230-260
SMT 256R	High-temperature applications e.g. Pb free (Red)	230-260
SMT 256F40	High-temperature applications - 40% filler load	230-260
SMT 256EP	High-temperature solder paste	230-260
SMT 256HR	High-temperature solder paste (Cu)	230-260
256EPT6		
SMT 266	High-temperature applications e.g. Pb free	230-260
SMT 266HR	Lead free & Sn/Pb applications; jetting process (Red)	230-260
BP 256	Ball attachment	220-260
BP 256R	Ball attachment (Red)	220-260
SMT 138P	Low temperature solder paste replacement - Printing	140-185
SMT 138E	Low temperature solder paste replacement - Dispense	140-185



Solder Joint Encapsulant provides better soldering wetting in air reflow than tacky flux in Nitrogen reflow.



Solder Joint Encapsulant enhances solder joint strength 5x, and smaller standard deviation than tacky flux.



Solder Joint Encapsulant enhances thermal cycling 10x, than tacky flux. (Thermal Cycling Conditions: SAC305; I/O 1156; -55°C~150°C; 1h/cycle.)