YINCAE PRODUCTS ADHESIVES SMT158 SMT160

# DIE ATTACH ADHESIVE PRODUCT DATASHEET

# SMT158 SMT160

**TRESKY** SMT158 capillary underfill is a combination of capillary flow and no-flow underfill, rapid curing, fast flowing, easy reworking 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.

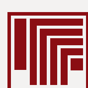
**TRESKY** SMT160 underfill is a combination of capillary flow and no-flow underfill, rapid curing, Super-fast flowing, easy reworking liquid epoxy which can be used as a underfill for chip scale package, ball grid array devices, package on package and land grid array and some flip-chip application.

Low Cost Ownership

Excellent Mechanical shock Performnace

Super-Fast flow Underfilling

| Product Name (Test Method) | SMT158 SMT160 Underfill |
|---|---|
| PROPERTIES OF UNCURED MATERIAL | |
| Appearance | SMT158: White<br>SMT160: Colorless or yellowish Liquid |
| Specific Gravity (ASTM D 1475-60) | SMT158: 1.8g/cc<br>SMT160: 1.17g/cc |
| Viscosity (Brookfield, 0.5rpm) | SMT158: 3.5-8.0k cp<br>SMT160: 1.5-2.5k cp |
| Capillary Flow Rate (STM 777)<br>(flow time @90°C, glass to glass, 25μm gap) | SMT158: 10 mm…<10s; 40 mm …<50s<br>SMT160: 10 mm…<5s; 40 mm …<50s |
| PROPERTIES OF CURED MATERIAL | |
| Tg (ASTM D 3418-82) | SMT158: 149°C<br>SMT160: 52°C |
| C.T.E, PPM /°C (ASTM E 831) | SMT158: α1 = 35; α2 = 142<br>SMT160: α1 = 70; α2 = 272 |
| Lap Shear Strength (FR4/FR4) | SMT158: **2600psi**<br>SMT160: **2480psi** |
| Extractable ions (MIL-STD-883E) | |
| Na+ | <5ppm |
| K+ | <5ppm |
| F- | <5ppm |
| Cl- | <10ppm |
| Surface insulation resistance (J-STD-004) | Pass |


TRESKY

Dr. TRESKY AG Switzerland Email: tresky@tresky.com www.tresky.com

## MORE DETAILED

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. This material is easily dispensed, minimizes induced stresses and provides outstanding reliability performance (e.g. temperature cycling performance) and excellent mechanical resistance. The performance of drop test has been improved by two orders of magnitude compared with that with the use of solder paste.

## RECOMMENDED CURING CONDITIONS

SMT158 In – line curing or 15 minutes at 150 °C
SMT160 In – line curing or 15 minutes at 165 °C
Note: 15 min curing time includes the time to allow the bond location to reach the desired cure temperature. Alternate cure profiles may be evaluated.

## STORAGE & SHELF LIFE:

6 months provided materials are kept in sealed original container -40°C for SMT158 and –10 to – 20 °Cfor SMT160. Storage beyond this period can produce higher viscosity. Protect from moisture, evaporation and foreign materials. Process ability of these products can be adversely affected by evaporation and contamination.

## SAFETY:

SMT ...... is a friendly, non-toxic material. However, general hygiene practice is recommended when handling this material. For detail information please consult our MSDS.

## PACKAGE:

SMT ..... capillary underfill series are available in 10 cc and 30cc. package. Other packages are available depending on customer's request. Contact TRESKY for order information.

Note: All specifications are subject to change without notice

## REPRESENTED BY:


## HEADQUATERS

www.tresky.com

**Dr. TRESKY AG**
Boehnirainstr. 13
CH-8800 Thalwil
Switzerland
Tel.: +41 44 772 1941
Fax: +41 44 772 1945
tresky@tresky.com

**TRESKY Competence Center**
Lange Enden 29
D-13437 Berlin
Germany
Tel.: +49 30 683 208 92
Fax: +49 30 683 208 94
daniel.schultze@tresky.com

**TRESKY Corporation**
704 Ginesi Drive, Suite 11A
Morganville, NJ 07751
USA
Tel.: +1 732 536 8600
Fax: +1 732 536 0495
sales@tresky.com