



PLACE-N-BOND™ PRODUCT DATA SHEET

RP-113179 Pick and Place Underfilm *Low Temperature*

FEATURES

- Enhances CSP and BGA solder joint reliability
- Reduces cost by combining pick and place plus soldering in one heating pass (no dispensing)
- No capital expense or equipment required
- Compatible with existing lead and Pb-free materials and reflow profiles
- Air or nitrogen reflow compatible
- Requires no pre-baking of boards
- RoHS compatible
- *Low temperature processing*
- Patented in USA and other countries
- Over one billion units in service



APPLICATION

- Pick and Place Underfilm technology was developed to reduce solder joint fatigue failures caused from drop and shock associated with brittle lead free solder joints and reduced joint size due to BGA miniaturization
- Simplified application utilizing existing tape and reel feeders plus high-volume pick and place equipment on a current SMT assembly line
- Underfilm does not interact with solder or flux
- AOI easy recognition
- Less flow in the X-Y dimensions bonds a more precise target area for space sensitive and encapsulating applications

INTRODUCTION

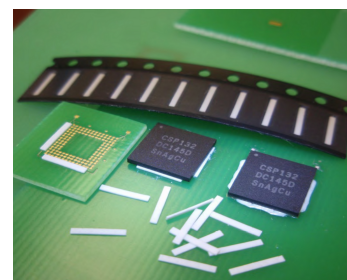
- Residue and solvent free, requires no post cleaning
- Migration free, will not interfere with solder or flux
- Micro precision technology allows for other SMT components to be placed in close proximity

RELIABILITY

- Underfilm offers excellent adhesion to BGA / CSP devices
- Strain relief for connectors

MANUFACTURING

- No equipment purchase required
- No extra floor space required
- No fumes because no dispensing
- No equipment to maintain or needles to clog
- No additional cure cycle
- No uncured cleaning required
- No pre-bake required
- 100% material utilization because no dispense

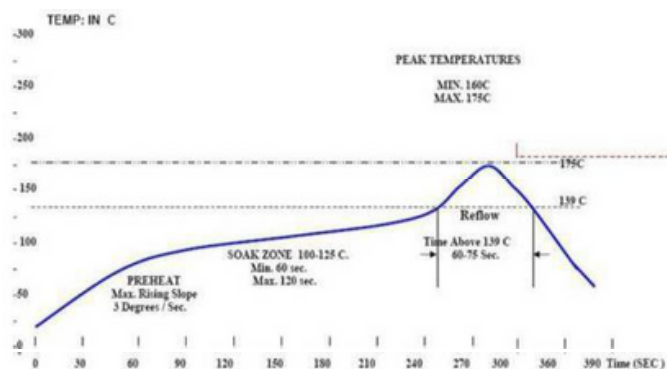


PACKAGING

- Supplied on reel per EIA 481 carrier tape
- Utilization of precision carrier tape, cover tape and standard reels
- Static shielding bag and sealed, MSL 1

PROCESS RECOMMENDATIONS

- Screen print solder paste, pick and place Underfilm, pick and place BGA, reflow



REWORK

- Underfilm is 100% reworkable

STORAGE AND HANDLING

- No special storage or handling required
- Outstanding shelf life

MECHANICAL

Hardness Shore A	94A
Tensile Modulus	800 PS1
Melting Point	150 C
Specific Gravity	1.22g/c
CTE	85 uin/in-F

SAFETY

- Underfilm is a benign, non-toxic material under a typical reflow profile

