IMT-EE1009
CONDUCTIVE DIE ATTACH ADHESIVE

IMT-EE1009 is a single component, silver loaded die attach adhesive. This product has ultra low ionic impurities and was designed to meet demanding semiconductor and microelectronics die attach applications.

IMT-EE1009 has exhibited excellent adhesion strength to various leadframes, high Tg FR4, BT based substrates and flex-tape. This conductive die attach adhesive has a wide curing window. It can be snap cure within a minute at elevated temperature or fast cure in a conventional box oven. It contains neither solvent or hazardous substances and is a 100% solid system.

This high performance conductive die attach adhesive is packaged in syringe for use in automated, high speed dispensing equipment or in jar for pin transfer / stamping method. It complies to RoHS3, EU directive 2015/863 as well as Substances of Very High Concern (SVHC) published by ECHA.

TYPICAL PROPERTIES*

Cure Conditions (Actual holding temperature & time)	200˚C for 1 min 160˚C for 15 mins 150°C for 30 mins
Pot Life	≤ 48 hours at room temperature
Shelf Life	12 months at -40˚C (syringe packing)
Thaw Time from -40°C to RT	3cc syringe: 30mins 5cc syringe: 45mins 10cc syringe: 60mins
Physical Properties	
Color	Silver before & after cure
Consistency	Smooth, creamy paste
Specific Gravity	2.95
Viscosity @25˚C, 20rpm	12,000cPs
Thixotropic Index, (1/10rpm)	4.36
Glass Transition Temperature	> 100˚C
CTE α1 (below Tg)	65ppm
CTE α2 (above Tg)	118ppm
Shore D Hardness	80
Die Shear Strength	> 15Kgf per 3.2x2mm chip on Ag plated leadframe
Weight Loss @160°C-25mins	0.1942%wt
Weight Loss @300°C	0.02%wt
Degradation Temperature	> 350˚C
Electrical & Thermal Properties	
Volume Resistivity	0.00036Ωcm
Thermal conductivity @K=T/RxA	28.128W/mK
Ionic Contents	
Chloride, Cl-	< 20ppm
Sodium, Na+	< 5ppm
Potassium, K+	< 5ppm

Handling Instructions

1. Do not refreeze when thawed to room temperature, thawed adhesive must be used immediately and not recommended to refrozen.
2. Allow syringe and/or container to reach room temperature before use.
3. Any moisture/water on thawed syringe and container must be removed prior to use.
4. Adhesive must be completely used within the recommended pot life of 48 hours.
5. Silver-resin separation may occur if adhesive is left at room temperature beyond recommended pot life.
6. Care must be taken to prevent air and/or contaminants into the adhesive when transferring to final dispensing or stamping reservoir.

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