

Shin-Etsu Packaging Materials

Product Description

Shin-Etsu is a leader in developing advanced, semiconductor packaging materials for encapsulating all types of semiconductor devices. This broad line of products is made of silicone molding compounds and epoxy molding compounds that offer low stress, very low warpage, and high thermal conductivity.

Molding Compounds

- Low Internal Stress
- Stable at High Heat & Voltage
- High Thermally Conductive Formulations

Silicone Die Attach Materials

- Low internal stress
- High adhesive strength
- Less contamination

Liquid Epoxy Encapsulants

- Low Internal Stress
- Stable in Harsh Environments
- Oil, Chemical & Thermal Shock Resistance

Thermally Conductive Silicone Adhesives

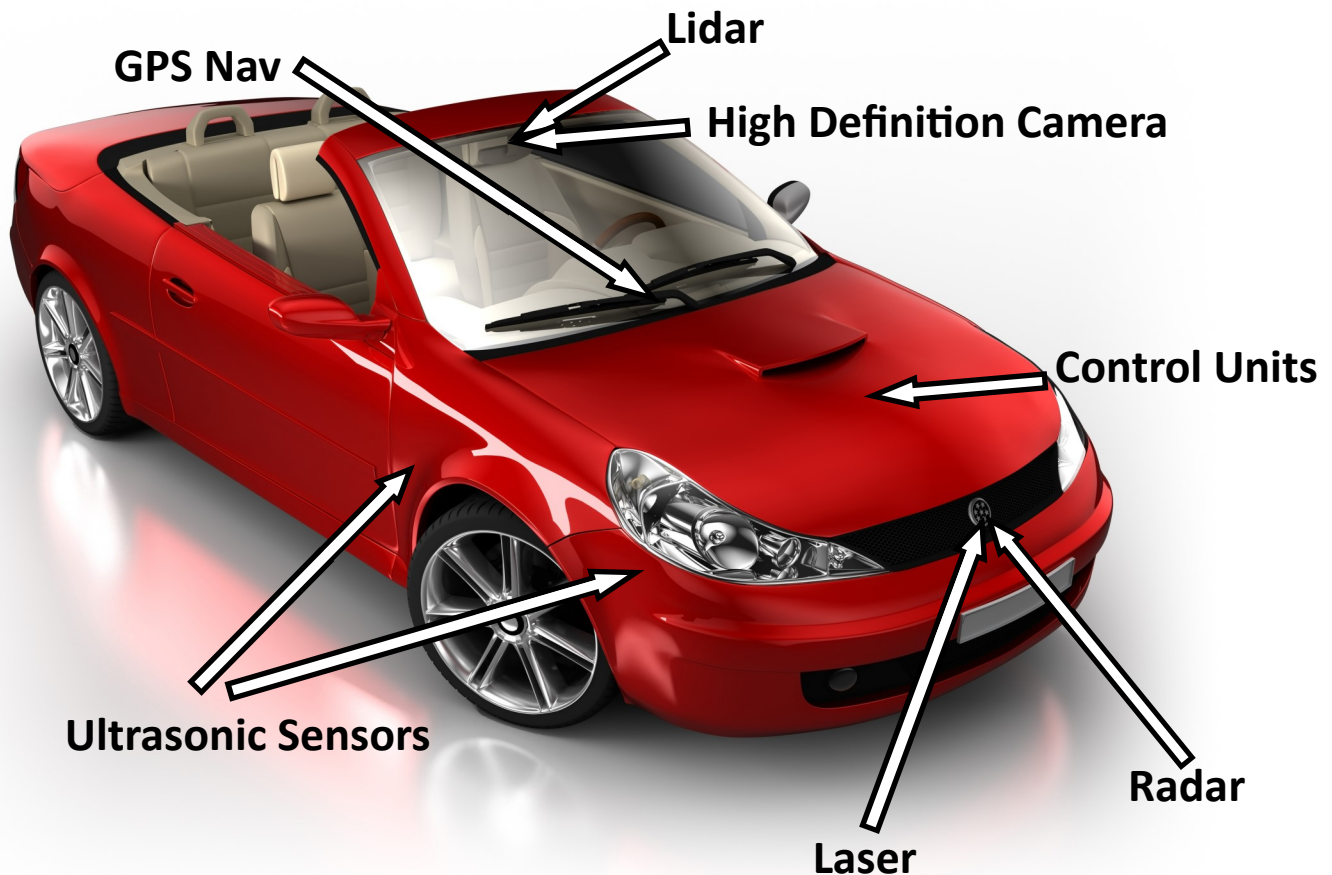
- Thermoset Adhesive
- High Adhesive Strength
- Low Temperature Cure Adhesive
- No Induced Stress by Heating
- Conformal Film Adhesive

Polyimide Silicone Chip Coating Materials

- High adhesive stability
- High electrical insulative properties

Wafer Backside Coating Materials

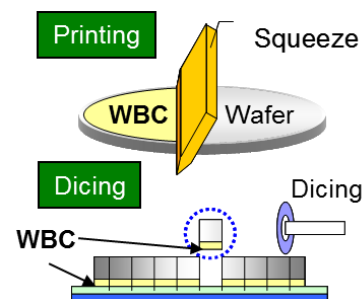
- Smooth surface after printing
- Good dicing performance
- No die motion during wire bonding



Shin-Etsu Packaging Materials

Wafer Backside Coating Materials

Grade	SFX524G2D	SFX524G2C
Color	Silver	Black
Viscosity (Pa*s)	43	17
Hardness MPa (Flexural Modulus)	6,000	1,600



Silicone Die Attach Material

Grade	LPS-8420	KJR-9602-5WH	KJR-9602-5
Color	Transparent	White	Black
Viscosity (Pa*s)	10	1,700	1,700
Hardness	A 70	A 40	A 35
Elongation (%)	100	400	300

Liquid Epoxy Materials

Grade	Standard Potting		High Thermal Conductive (2.5W/mk)	Electrically Conductive
	SMC-762NN	SMC-762D	SMC-762HCLL	SFX-5603-7AQ
Viscosity (Pa*s)	30	250	50	80
Tg (°C)	145	145	145	150
CTE (ppm/°C)	14	16	17	35
Flexural Modulus (N/mm ²)	15	12	16	8

Molding Compounds

Grade	KMC-2520L-M1	KMC- 2280H	KMC- 8000X
Flame retardant	Green	Green	Green
Flexural Strength (N/mm ²)	130	100	120
Flexural Modulus (N/mm ²)	20,000	13,000	12,000
Tg (°C)	163	190	225
CTE 1 (ppm/°C)	11	15	16
CTE 2 (ppm/°C)	45	54	38

Thermally Conductive Silicone Adhesives

Grade	LPS-AF500TC	LPS-AF500EC	KJR 9080H-8	KJC-5080T	KJC-5080T-2
Thermal Conductivity (W/mk)	2.9	13.7	3.0	3.0	3.0
Application	Film	Film	Dispense	Dispense	Print
Cure Temperature (°C)	150	150	150	23	<100
Hardness	D 40	-	90	79	74
BLT (μm)	50	50	50	150	150

Polyimide Silicone Materials (Adhesion & Insulation Improvement)

Grade	KJR-651E	KJR-655E	KJR-657E
Features	Standard	Thin Film	Thick Film
Solvent	NM2P	NM2P	NM2P/MeOH
Storage Temp. (°C)	5	5	5
Dielectric Breakdown V/0.1mm	13	13	12
Young's Modulus GPa	2.4	2.4	2.3
Tg (°C)	255	255	230

Please Contact:
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