ShinEtsuMicroSi®

Sensor Materials

Sensor Manufacturing

Photoresists

Our broadband, I-line and G-line spin on photoresists are formulated to provide high resolution, vertical profiles, outstanding depth of focus, plasma and wet etch resistance, good plating performance and superior adhesion. Applications include:

- CMOS
- High Energy Implants
- MEMS
- GaAs
- Thin Film Head
- Bump
- Other Specialty Applications

Substrates

Our synthetic quartz wafers and substrates, bonded SOI and other specialty wafers have exceptional properties required for the following applications:

- MEMS
- RF Devices
- TFT-LCD

Resins

Our solvent and water based resins are available as binders for conductive inks. Printing types include:

- Gravure
- Screen Printing
- Inkjet

Sensor Packaging & Assembly

Silicones

Our silicone based materials were developed for MEMS mounted sensors, smaller package devices and high performance devices. We offer single component heat cure silicone gel, polyimide silicone, and fluorosilicone materials for the following applications:

- Die Bonding
- Electrode Encapsulation and Chip Coating
- Frame and EMC Stress Relief

Photoimageable Dielectrics

Our photoimageable dielectrics are key performance materials for advanced packaging applications, wafer-level packaging, and 3D integration. Applications include:

- Stress Buffer
- TSV Filling
- Permanent Wafer Bonding
- Redistribution Wiring (RDL)

Resins

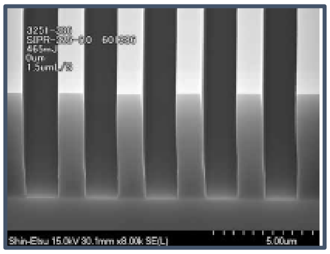
Our solvent and water based resins for coatings, adhesives, sealants, and encapsulates offer chemical resistance, toughness, flexibility and flame resistance. We offer Vinyl Chloride Copolymers, Acrylic, Polyurethane and Silicone Hybrids for the following applications:

- Flexible Textile Coatings
- Adhesives
- Protective Coatings and Encapsulation

Photoresists

G/I/H Line Resists

- SIPR 3251M
- SIPR 9332M
- SIPR 7120 Series

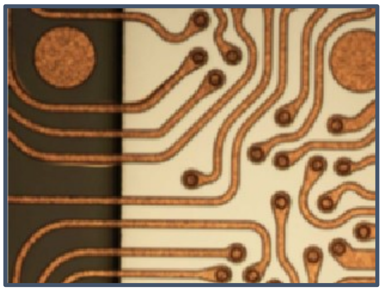


SIPR-3251M – 6um Thick – 1.5um L/S

Photoimageable Dielectrics

Siloxane Polymer

- SINR 3170M
- SINR 3570M



Substrates

Synthetic Quartz Wafers and Substrates

- VIOSIL-SQ, VIOSIL-SX

Bonded Silicon on Insulator (SOI) Wafers

- Silicon on Sapphire (SOS), Silicon on Quartz (SOQ)

Silicones

Die Bonding

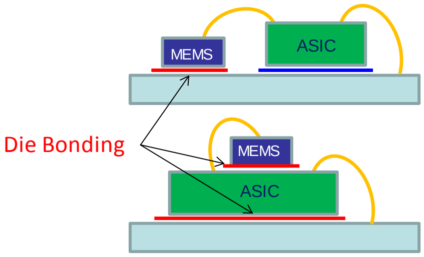
- KER-6020-F/F1/F2, KER-3500-P2

Electrode Encapsulation & Chip Coating

- KER-6021, KER-2201, FE-73, FE-78-A/B

Frame and EMC Stress Relief

- SMP-2840, SMP-5005PGMEA, SMP-5008PGMEA



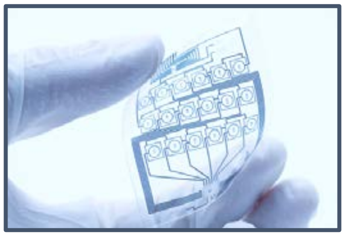
Resins

Solvent based VC/VAc Copolymers

- SOLBIN

Water based VC/VAc, VC/Acrylic Acid Ester, VC/Polyurethane Emulsions

- VINYBLAN



Silicone/Acrylic Hybrid

- CHALINE