



ZTACH® ACE Anisotropic Conductive Epoxy

SunRay's ZTACH® ACE Anisotropic Conductive Epoxy and ZMAG™ Magnetic Pallet system enables the future of electronic device die attach in printed electronics for emerging applications like Flexible Wearables, Electronic Micro-assembly, semiconductor packaging within Consumer Products, and X-Ray imaging. ZTACH® ACE is applied as a paste without any pressure, and once applied to our patent-pending ZMAG™ Magnetic Pallet, can be cured either with heat at low temperature (70°C to 200°C) or with UV energy. This results in the self-assembly of conductive Z-Axis columns at regular intervals throughout the adhesive matrix. The columns create electrical and thermal interconnection in the Z-Axis while maintaining electrical insulation in the X-Y plane. After formation, the columns maintain their structure due to immobilization within a now rigid polymer matrix.

S-CEP7-SF4 Electrically Conductive Adhesive

SunRay's innovative ECA epoxy is no ordinary die attach adhesive. With adhesive strength between 3 and 7 times the industry standard, and 5 – 10 times the flexibility of a standard ECA, CEP7-SF4 cures in 3 minutes at 135°C. Precision application for device attached on highly flexible films and even textile is now achievable.



S-UVEF-1 UV Cured Flexible Encapsulant

SunRay has used our innovative materials science chemistry along with developments in material processing to develop a highly flexible, moisture resistant, UV curable encapsulant for mounted device protection. With excellent adhesion, 1000 volts of dielectric strength, and 1220 psi of tensile strength, UVEF-1 can stay in place, flex with your film, and maintain mechanical and environmental protection of all your mounted devices.

S-FSTF-SF2 Conductive Silver Ink

SunRay has innovated unique processing with standard conductive pigments, combined with unique proprietary additive technology to create a conductive silver ink, with lower resistance, at lower silver loading, and superior flexibility, with 6H pencil hardness. FSTF-SF2 can cure in 3 minutes at 135°C to provide a high performance, incredibly flexible printed circuit, with the added benefit of our innovative Anti-Silver Migration technology formulated into this ink. Reducing migration and oxidation by over 60%, can drastically reduce field failures due to migration induced shorting, and preserve the integrity of your product. While at the same time, reducing the need for requiring a secondary carbon overprint for added protection.