

TS1331

Stretchable Conductive Adhesive

Product Description

TS1331 is a silver filled, solvent free, one component conductive adhesive that remains stretchable following thermal cure. This conductive adhesive was designed for bonding to flexible substrates and accommodates interface stresses and strains during bending. TS1331 is both electrically and thermally conductive and can be used in a broad range of applications.

Product Benefits

TS1331 is compatible with flexible systems where interconnect robustness and reliability is challenging. It can be used with high volume automated dispensing processes, and can be cured rapidly with low shrinkage. The cured material displays outstanding thermal and electrical conductivity, with a unique combination of high flexibility, high shear strength, and high adhesion to a broad range of materials. The cured material provides stress relief for bonding dissimilar materials in flexible packaging, which enables high reliability performance metrics such as high resistance to shock and cyclic fatigue.

Typical Properties

Physical State	Paste/Ink
Color	Silver
Viscosity ¹	
1 s ⁻¹	40 Pa·s
10 s ⁻¹	15 Pa·s
100 s ⁻¹	10 Pa·s
Density	2.8 g/mL
Shelf Life at -40°C ²	12 Months
Pot Life ²	9-12 hours
Weight loss on cure	< 1 %
Weight loss @ 300°C TGA	1%

¹ Anton Paar MCR302 at 25°C

² Storage at below or greater than can adversely affect product properties

Typical Processing Parameters

Deposition	Syringe
Recommended Curing Conditions	
60 minutes	140°C
30 minutes	150°C

For performance reported, the material was processed at 140°C for 60 minutes.

Typical Performance

Volume Resistivity ³ 140°C for 60 min in box oven	<5.0 x 10 ⁻⁴ Ω*cm
Lap Shear Strength	>1,500 kPa
Tg	-10°C
Stretch	50%

³ Measured 24 hours after suggested cure cycle.



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Caution

Proper industrial safety precautions should be exercised in using these products. Use with adequate ventilation. Avoid prolonged contact with skin or inhalation of any vapors emitted during use or heating of these compositions. The use of safety eye goggles, gloves or hand protection creams is recommended. Wash hands or skin thoroughly with soap and water after using these products. Do not eat or smoke in areas where these materials are used. Refer to appropriate MSDS sheet.

Disclaimer

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