



PACKAGING ADHESIVE/SEALANT FORMULATION 6109

Formula 6109 is a B-staged adhesive/sealant for sealing electronic packages. It is ideal for use in automated sealing applications for materials of similar CTE values. Formula 6109 is a next generation substitute for NS-110. Formula 6109 has improved moisture resistance; lower out gassing properties, and better adhesion to plastic than its predecessor NS-110. It is a high flow, low viscosity system for use on ceramic, plastic, and metal IC covers.

TYPICAL PROPERTIES

Max operating temperature (continuous), °C	160-165°C
Outgassing	0.1%TML, 0.02%CVCM
Moisture absorption (24 hr. soak in water @ 100°C)	0.1%
Total ionic content (specific electrical conductance), mS/m	NA
Extractable Ions, ppm	<10
Hydrolysable chloride content, ppm (MIL-STD 883H Method 5011.5)	NA
Ultimate Tg by DSC, °C	145
Modulus, psi	450,000
CTE, ppm/°C	23
Dielectric constant (@ 1MHz)	3.4
Volume resistivity, Ohm-cm	3×10^{16}
Thermal conductivity, W/m-k	0.4 – 0.6

TYPICAL SEALED PACKAGE PERFORMANCE PROPERTIES

Reflow temperature, °C	260
Lap shear strength (gold/ceramic @ 25°C), psi	4500

*These values may vary depending upon the materials to which the epoxy is adhered. All above data is based on sealed packages consisting of a ceramic header and a ceramic lid.

SEALING AND CURING

Most parts can be sealed and cured in a one-step cycle of 60 minutes at 165°C with 5 psi of pressure. Both reactivity and rheology are adjustable to meet specific sealing requirements. For alternate curing practices or automated sealing procedures, please consult RJR Technologies Customer Service. (Phone # 510-638-5901 or FAX # 510-638-5958)

STORAGE AND HANDLING

Keep parts with the material in vacuum sealed bag with dry-packs at 3-8°C and <50% RH. Shelf life of the material when stored under refrigerated conditions (3-8 °C) is 6 months from the date of manufacture. Room temperature and frozen storage conditions may be appropriate for some applications. Please consult RJR Technologies Customer Service for specific storage options.

REGULATORY

This product is RoHS compliant.

NOTICE

This data is provided for guideline purposes. No warranty is made on the actual use. Customers should perform their own tests and qualifications.