TECHNICAL DATA SHEET

EPIC RESINS
COMPOUNDS AND RESINS FOR INDUSTRY

S7136 SERIES POTTING COMPOUNDS

The S7136 series of materials are two component epoxy compounds. S7136 has been designed for potting and adhesion applications that require:

- Superior Chemical Resistance
- Low Water Absorption
- Low Coefficient of Thermal Expansion
- High Glass Transition Temperatures
- Excellent Thermal Conductivity

The S7136 series has successfully passed a one year methylene chloride soak, an aggressive solvent. The versatility of this series warrants its use in a variety of applications including:

- Submerged Filters
- Potting Electronic Sensors and Control Boards in Harsh Environments
- Potting Pump Motors
- Potting Fuel Sensors and Fuel Pumps

Epic Resins offers two variations of this formula including a black version (S7136) and a white version (S7136-01). In addition, Epic Resins offers distinct advantages over our competitors:

- ISO 9001 and 14001 Recognized Management System
- Extensive Customer Support
- New Product Development
- Product Customization
- Application Property Testing
- Local Field Technical Service – No Need to Work Through Distributors

GENERAL PROPERTIES

Product Resin	Epoxy
Component Count	2
Shelf Life @ 25˚C	12 Months

MATERIAL PROPERTIES

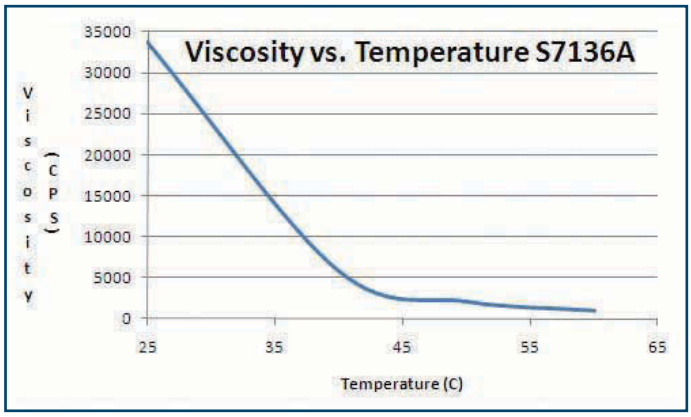
Viscosity

Part A (ASTM D2393)	30,000 – 40,000 cps @ 25˚C, 20 RPM
Part B (ASTM D4287)	24 – 32 cps @ 25˚C, 300 RPM
Mixed (ASTM D2393)	3,500 – 4,500 cps

Mix Ratio by Weight	100:8.5
Mix Ratio by Volume	100:13

Weight Per Gallon

Part A (ASTM D1875)	12.15 – 12.55 lb/gal
Part B (ASTM D1875)	8.10 – 8.20 lb/gal
Mixed (ASTM D1875)	11.85 – 11.95 lb/gal



MIXED PROPERTIES

Pot Life (200g @ 25°C)	25 – 30 min
Cure Schedule	7 days @ 25˚C
Alternate Cure	3 – 4 hours @ 25˚C + 1 hr @ 100˚C

CURED PROPERTIES

Hardness (ASTM D2240)	88 – 92 Shore D
Water Absorption (ASTM D570)	0.12 – 0.14% (6 days @ 25˚C)
Tg (ASTM E1545)	108 – 118˚C
Coeff Therm Exp. (ASTM E831)	44 – 48 (EXP-6) in/in ˚C
Lap Shear (ASTM D1002)	2,000 – 2,300 psi, aluminum to aluminum

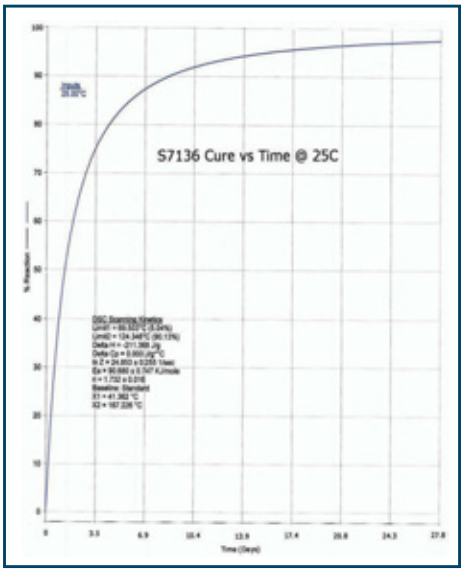
Thermal Conductivity (ET-164)

BTU	3.3 – 3.5 BTU in/hr ft^2 ˚F
Cal Cm	11.5 – 12 (EXP-4) Cal Cm/Sec Cm^2 ˚C
W/mK	0.48 – 0.50 W/mK

Tensile Strength (ASTM D638)	6,300 – 6,900 psi
Compressive Strength (ASTM D695)	17,500 – 20,500 psi
Modulus of Elasticity (ASTM D638)	305,000 – 325,000 psi

ELECTRICAL PROPERTIES

Dielectric Constant (ASTM D150)	3.78 – 4.17 @ 100 kHz
Dissipation Factor (ASTM D150)	0.020 – 0.022 @ 100 kHz
Dielectric Strength (ASTM D149)	475 – 525 Volts/mil (0.06 inch)
Volume Resistivity (ASTM D257)	6.90e+15 – 7.50e+15 ohm cm



MIXING INSTRUCTIONS

Pre-mixing insures each component's fillers are dispersed completely. When mixing two component epoxy resins the ideal method is to mix by weight using a balance or digital scale. The mixing container should be placed on the scale and set to read zero, the appropriate amount of resin should be weighed, followed by the appropriate amount of hardener. The material should then be stirred, ideally with a metal spatula, ensuring that the material is thoroughly mixed to a homogenous state by scraping the sides, bottom and the area where the sides meet the bottom of the container. Failure to do so can result in uncured sections of material or altered properties of the cured material. When mixing epoxy resins it is important to keep in mind that the larger the quantity of material mixed, the shorter the pot life (working time) will be.

STORAGE AND HANDLING

Please refer to the Material Safety Data Sheet when determining the proper precautions to be used when storing or handling Epic S7136. Most epoxy resins and hardeners are skin and eye irritants. Some epoxy hardeners may actually be corrosive to the skin and eyes. Other health problems may be aggravated by exposure to these materials. Epic Resins recommends that engineering controls be used to minimize employee exposure to this or any other industrial chemical.

EPIC RESINS

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