Product Datasheet

SP&S Specialty Polymers and Services

EP 8260 with Hardener HY 2966

Filled epoxy dip coating / conformal coating

Typical Properties

(Not for specification purposes. All tests run at 25°C unless otherwise noted)

EP 8260 Resin / A-side Properties:

Appearance	Visual	Black thick liquid
Specific Gravity	ASTM-D-2393	1.43 g/cc
Viscosity @ 25°C	ASTM-D-792	95,000 cP
Flash Point, closed cup	ASTM-D-92	>63°C (145°F)

Hardener HY 2966/ B-side Properties:

Appearance	Visual	Light yellow liquid
Specific Gravity	ASTM-D-2393	0.97 g/cc
Viscosity @ 25°C	ASTM-D-792	400 cP
Flash Point, closed cup	ASTM-D-92	200°C (392°F)

Mix Ratio:

Parts by weight (by volume) 100A:20B (100A :29.5)

Mixed Properties:

Initial Viscosity @ 25°C	ASTM-D-792	29,000 cP
Pot life (100 g. mass)	OC-WI-001	16 minutes

Recommended Cure Schedules:

24 hrs at 25°C **or** alternate 2-4 hours @ 65°C.

Please note: any cure schedule selected for use should be confirmed through testing as being appropriate for your particular processing methods and for your intended application.

Cured Properties (cured 7 days at 25°C)

Appearance	Visual	Black
Specific Gravity	ASTM-D-792	1.38 g/cc
Shore Hardness	ASTM-D-2240	78D
Linear shrinkage	ASTM-D-2566	0.005 in/in
Compressive strength	ASTM D-695	15,200 psi
Compressive modulus	ASTM D 695	422,000 psi
Flexural strength	ASTM D-790	10,500 psi
Flexural modulus	ASTM-D-790	832,000 psi
Water absorption (% weight gain after immersion @ 25°C)	ASTM-D-252	24 hrs – 0.04% 7 days - 0.11% 30 days - 0.15%
Coefficient of Thermal Expansion(CTE) (per °C)	ASTM-E-381	63.5×10^{-6}
Glass Transition Temp (Tg)	Perkin Elmer Case #20	92°C
Thermal Conductivity	ASTM D-2214	0.0007 cal/cm-sec-°C
Estimated Continuous Service temperature range	ASTM-D-638	-40°C to + 155°C
Volume Resistivity @ 25°C	ASTM-D-257	2.4×10^{15} Ω-cm.
Dielectric Strength	ASTM-D-149	420 volts/mil
Dielectric Constant @1KHz / 1MHz	ASTM-D-150	4.5 / 3.88
Dissipitation Factor @1KHz / 1MHz	ASTM-D-150	0.02 / 0.05

EP8260 with Hardener HY 2966 is a filled, 100% solids epoxy dip coating or conformal coating system. When cured, this material forms a continuous infusible envelope of protection with excellent electrical and physical properties. This system is a more heat and chemical resistant alternative to the standard EP 8260/H100 system.

When applied via brushing or dipping, EP8260 / HY 2966 is designed to yield a smooth, void-free, sag-free and drip-free coating even on vertical surfaces. EP8260 can be cured at room temperature or with mild heat. It has superior resistance to moisture and many chemicals and exhibits very good resistance to cracking due to thermal cycling. This material adheres well to various substrates and exhibits excellent edge coverage.

EP8260 with Hardener HY2966 is recommended for the dip coating of heat sensitive electronic components, rectifiers, capacitors (styrene, paper, mylar, and tantalum), resistors and ferrites. Alternate hardeners are available to allow users to tailor the processing and final properties to their requirements. Please contact SP&S for assistance if you are interested in a customized version of this system.

Suggested Applications:

- Brushing or dipping
- Heat sensitive electronic components, rectifiers, capacitors and resistors and ferrites.

Benefits:

- Thixotropic (resists sagging and running)
- Superior moisture and thermal cycle resistance.
- Excellent physical and electrical properties

Storage Guidelines:

Store this material in a clean, cool, and dry environment in its tightly closed original container. Products which may crystallize during storage may be reliquified by warming the contents of the shipping containers, loosely covered, to 65°C for 1-4 hours. Allow contents to cool to 30°C or less before continuing. Avoid extended exposure to extreme humidity. If the recommended storage conditions are observed the products will have a minimum shelf-life of 12 months from the date of shipment.

Processing Guidelines:

Weigh Part A and Part B in the recommended ratio as accurately as possible into a clean mixing container. Always use weighing equipment having an accuracy that is in proportion to the amounts being weighed. Blend by hand for 2-3 minutes using a kneading motion. Scrape the bottom and sides of the mixing container carefully and frequently to produce a uniform mixture. Alternately, you can use a power mixer to blend the material. When using a power mixer be sure to scrape the sides and bottom of the mixing container and the blades and shaft of the mixer and mix thoroughly. Avoid excessive mixing speeds which could introduce large amounts of air or cause heating of the mixture which would result in a reduced working life.

Handling Precautions:

Mandatory and recommended industrial hygiene procedures should be followed whenever these products are being handled and processed. For additional information please consult the corresponding material safety data sheets.

Personal Hygiene:

EP 8260

WARNING! Causes skin and eye irritation. May cause allergic skin reaction. Harmful if inhaled or swallowed. Avoid contact with eyes, skin, or clothing. Wear eye protection and impervious gloves when handling. Wash thoroughly after handling. Avoid breathing vapor or mist. Keep containers closed when not in use. Use only with adequate ventilation. Do not take internally.

Hardener HY 2966

DANGER! May causes eye burns and skin irritation. Do not get in eyes. Avoid contact with skin and clothing. Avoid breathing vapor or mist. Keep container closed. Use with adequate ventilation. Wash thoroughly after handling

First Aid

In case of contact:

Skin – Immediately wash skin thoroughly with mild soap and water. Remove contaminated clothing and wash before reuse. Destroy contaminated shoes and other articles made of leather.

Eyes – Immediately flush eyes with plenty of water for 15 minutes and get prompt medical attention.

Inhalation - Remove person to fresh air. Administer oxygen or artificial respiration if necessary. Call a physician.

Ingestion - Do not induce vomiting. Dilute with plenty of water and contact physician immediately. Never give anything by mouth to an unconscious person.

Disclaimer:

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