

EP 8260/ Hardener 15AX

EPOXY DIP COATING / CONFORMAL COATING SYSTEMS

EP 8260 with Hardener 15AX is a filled epoxy resin system that provides a smooth gel-like consistency with excellent drip and sag/run resistance. It provides a long work-life at room temperature and cures relatively quickly with heat. EP 8260 with Hardener 15AX is suitable for application by brush, spatula, or dip coating to electronic and industrial components. The cured system provides excellent electrical & mechanical properties and very good heat, chemical & environmental resistance. Typical applications include the coating of electronic components such as capacitors, ferrites, rectifiers, and resistors.

Many alternate hardeners for the EP 8260 resin are available that have shorter work-lives, allow for room temperature curing, or provide customized cured properties. Other modification such as custom colors, adjusted viscosities, thermal conductivity, or flame retardance are also available by request. Please contact us to discuss your application if you think such a variant would be helpful for your application.

SUGGESTED APPLICATIONS:

<ul style="list-style-type: none"> Dip coating electronic components
<ul style="list-style-type: none"> Sag and Run Resistant coating and insulating material for many industrial and electronic applications.

HANDLING PROPERTIES	VALUE	TEST METHOD
<u>EP 8260</u>		
Visual Appearance	Black semi-paste	
Density	1.43 g/ml	ASTM E-201
Viscosity @ 25°C	115,000 cps	ASTM D-2393
Flash Point	>145°C	ASTM D-92
<u>HARDENER 15AX</u>		
Visual Appearance	Brown/Amber Liquid	
Density	1.01 g/ml	ASTM E-201
Viscosity, @ 25°C	75 cps	ASTM D-2393
Flash Point	51°C (124°F)	ASTM D-92
Mix Ratio (part by weight)	100 : 15 - 18	
Mix Ratio (parts by volume)	100 : 22 - 25	
Viscosity Mixed @ 25°C	24,000 cps	
Gel time, 100 grams	@ 25°C: >2 hours @ 82°C: 10 - 20 minutes	
<u>Suggested Cure Conditions:</u> for best results (ie. the lowest shrinkage) allow the system to gel at room temperature (8 – 24 hours) or gel for 2-4 hours @ 65°C. Then cure for 2 hours @ 125°C or 30 – 60 minutes at 150°C. For some applications, immediate curing at the 125°C or 150°C may be suitable, but this should be evaluated thoroughly in your application prior to		

Use on production parts.

PHYSICAL PROPERTIES (Tested at 25°C unless otherwise noted)

		TEST METHOD
Appearance		Visual
Density	1.40 g/ml	ASTM D792
Hardness, Shore D	86D	ASTM D-2240
Tensile Strength	9,200 psi	ASTM D-638
Compressive Strength	16,200 psi	ASTM D-790
Compressive Modulus	631,000 psi	ASTM D-790
Flexural Strength	11,800 psi	ASTM D-695
Flexural Modulus	875,000 psi	ASTM D-695
Glass Transition Temperature (T _g)	148°C	ASTM D-648
Coefficient of Thermal Expansion (CTE):		ASTM E-831
Above T _g / below T _g (ppm/°C)	74 / 146	
Moisture absorption @ 25°C, % weight gain		ASTM D-570
24 hour / 7 days / 30 days	0.09% / 0.24% / 0.51%	
Thermal Conductivity	0.28 W/mK	ASTM D-2214
Thermal Rating	-55°C to 155°C	EIC 216
Volume Resistivity @ 25°C	3.28 x 10 ¹⁵ ohms-cm	Mil-I-46058C
Dielectric Strength (1/8" thickness)	450 V/mil	ASTM D-149
Dielectric Constant / Dissipation Factor		ASTM D-150
@ 25°C & 1 KHz	4.43 / 0.02	
@ 25°C & 1 MHz	4.00 / 0.03	

NOTE : Values are based on laboratory and/or average production results. This data is not intended for specification purposes. Samples made using 100A:16B part by weight mix ratio & cured for 24 hrs @ 25°C + 2 hours @ 125°C.

SUGGESTED PROCESSING GUIDELINES:

To use, weigh Part A and Part B in the indicated mix ratio into a clean, dry mixing container. Mixing containers should preferably be made of polypropylene, polyethylene, glass, or non-corroding metal. (Stainless steel, aluminum, etc.). Always use weighing equipment having accuracy that is ±1% or less of the smallest quantity that you will be weighing. Blend Part A & B thoroughly using a spatula or stirring stick for at least 2-3 minutes using a kneading motion. Scrape the bottom and sides of the mixing container carefully and frequently to produce a uniform mixture. Vacuum de-gassing after mixing may be helpful to ensure the best electrical and physical properties in the cured polymer. Apply to clean, dry surfaces using a brush, spatula, or by dipping parts into the mixed epoxy.

STORAGE GUIDELINES:

Store these materials in a clean, cool and dry environment in their tightly closed original containers. Protect from extended exposure to temperatures below 15°C (59°F). Crystallization may occur if the material is exposed to cold for extend periods. If this occurs, heat the entire container of EP 8260 or Hardener 15AX for 4 hours at 65°C to re-liquefy the material. Allow to

cool to ambient temperature and re-mix prior to using. Also protect the materials from prolonged exposure to moisture or high humidity – keep contains tightly sealed when not in use and use a desiccant if extended exposure to moisture may occur.. If the recommended storage conditions are observed the products will have a minimum shelf-life of 12 months from the date of shipment.

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 8260A

CAUTION! May cause eye & skin irritation. Prolonged or repeated skin contact may cause allergic skin reactions. 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 15AX

DANGER!! FLAMMABLE & CORROSIVE Causes severe eye and skin burn and possible allergic skin reaction. Vapor is irritating to eyes, skin and nasal mucous membranes. Harmful if swallowed. Avoid contact with eyes, skin, or clothing. Wear eye protection and impervious gloves when handling. 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:

IMPORTANT: The following supercedes Buyer's documents: **SELLER / MANUFACTURER MAKES NO REPRESENTATION OR WARRANTY, EXPRESS OR IMPLIED, INCLUDING OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.** No statements herein are to be construed as inducements to infringe any relevant patent. Under no circumstances shall Seller / Manufacturer be liable for incidental, consequential or indirect damages for alleged negligence, breach of warranty, strict liability, tort or contract arising in connection with the product(s). Buyer's sole remedy and Seller's sole liability for any claims shall be Buyer's purchase price. Data and results presented are based on controlled or laboratory work and must be confirmed by Buyer by testing for its intended conditions of use. The product(s) has not been tested for, and is therefore not recommended for, uses for which prolonged contact with mucous membranes, abraded skin, or blood is intended; or for uses for which implantation within the human body is intended

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