EpoPro® EP 1200 with hardeners 202B, HY 956, H100, or H150

MULTIPURPOSE EPOXY RESIN SYSTEMS

EpoPro® EP 1200 resin is an undiluted, medium viscosity, epoxy resin. It is extremely versatile and has almost unlimited uses as an adhesive, binder, laminating resin, coating, and electrically insulating material. Hundreds of different hardeners can be used with the EP 1200 to achieve a wide range of properties. This datasheet is an overview of a small selection of hardeners used with the EP 1200 resin to illustrate the range of properties that can be achieved. For other hardeners please contact us for technical datasheets or guidance for those specific combinations.

Please note that EP 1200 is also available in custom colors and with other modifications as needed by the end user. Please contact us to discuss your application if you think such a variant would be helpful for your application.

APPLICATIONS & BENEFITS:

- Adhesive resin with good adhesion to a wide range of materials
- Electrical Potting & Encapsulation and Electrical laminates
- Protective coating for metals, concrete, etc. when used with appropriate hardeners.
- Tooling and Casting Materials

HANDLING PROPERTIES	VALUE	TEST METHOD
EP 1200		
Visual Appearance	Clear to light yellow liquid	
Weight per Epoxide	185 – 190	ASTM D-1652
Color, Gardner	< 1	ASTM D-1544
Color, APHA	< 150	ASTM D-1209
Density,	1.15 g/cm³	ASTM E-201
Viscosity at 25ºC	9,500 – 14,000 cps	ASTM D-2393
Refractive Index	1.573	
Water Content	< 0.08%	
Percent Solids (non-volatile %)	>99.95%	
Hydrolyzable Chlorine	< 0.1%	

Sampling of Common Hardeners:

Description	Curing Conditions	Characteristics & applications
EpoPro 202B	7 days at 25ºC or 16 hrs. at 70ºC or 8 hrs. at 95ºC	Extremely long work-life, used to cast or encapsulate very large parts. Low exotherm.
EpoPro HY 956	24 – 48 hours at 25ºC or 4 hrs. at 65ºC	Excellent for electrical encapsulation & potting, tough, rigid casting & coating system.
Hardener H100	24 hrs. at 25ºC or 3 hrs. at	General Purpose, tough rigid cured polymer

	65ºC	
Hardener H150	24 hrs. at 25ºC or 3 hrs. at 65ºC	Excellent cryogenic performance, impact & thermal shock resistant. Very good adhesive.

Processing Properties

	Mix ratio (by weight)	Mix ratio (by volume)	Mixed Viscosity at 25ºC	Gel time (100g) at 25ºC
EpoPro 202B	100:15	100:15	10000 cps	16+ hours
EpoPro 956	100:22	100:25	7000 cps	45 minutes
Hardener H100	100:14	100:16.5	3100 cps	45 minutes
Hardener H150	100:29	100:33	600 cps	30 minutes

Cured Properties at 25ºC

	Shore Hardness	Specific Gravity	Glass transition Temperature	Flexural Strength	Compressive Strength	Service Temperature
EpoPro 202B	84D	-	-	12000 psi	20000 psi	-40ºC to +130ºC
EpoPro 956	82D		85C	18125 psi	-	-40ºC to +130ºC
Hardener H100	86D	1.19	99C	17500 psi	18200 psi	-40ºC to +130ºC
Hardener H150	81D	1.18	62C	13000 psi	13000 psi	-100ºC to +130ºC

NOTE : Values are based on laboratory or average production results – not for specification purposes.

SUGGESTED PROCESSING GUIDELINES:

To use, weigh Part A and Part B in the recommended ratio as accurately as possible into a clean 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 by 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 is desirable for the best electrical and mechanical properties as well as for the best visual appearance, however this is not required for all applications.

The mixed material may be applied using a stiff brush, by pouring, or using syringes and or other application equipment.

STORAGE GUIDELINES:

Store these materials in a clean, cool and dry environment in its tightly closed original container. Store away from Fire, sparks, and heat. Protect the EP 1200 from extended exposure to temperature below 15ºC (59ºF) as crystallization may occur if the EP 1200 is exposed to clod for extend periods. If crystallization occurs, heat the entire container for 4 hours at 50ºC to re-liquefy the crystals. Allow the material cool to ambient temperature prior to using. Tightly re-seal containers after use. If the recommended storage conditions are observed the EP 1200 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 Safety Data Sheets.

PERSONAL HYGIENE:

EpoPro® EP 1200

WARNING! May cause eye & skin irritation and possible 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. Keep away from fire, sparks, or heat. Use only with adequate ventilation. Do not take internally.

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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