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HUNTSMAN

Product Data

EPOCAST® 50-A1 Resin
Hardener 9816
EPOXY LAMINATING SYSTEM

- High Strength
- Self Extinguishing
- Long Work Life

DESCRIPTION
Epocast 50-A1 resin/Hardener 9816 epoxy laminating system is an unfilled, solvent-free, easy-to-handle material for the manufacture or repair of composite structures as well as for filament winding. Epocast 50-A1 resin/Hardener 9816 epoxy laminating system is self extinguishing; qualification to BMS 8-201, Type 3 is pending. This product is also available in a shorter work life version - Epocast 50-A1 resin/Hardener 946 epoxy laminating system.

TYPICAL PROPERTIES AS RECEIVED

Property	50-A1 Resin	9816 Hardener	50-A1/9816 System	Test Method
Color	Amber	Straw	Amber	Visual
Density, g/cc.	1.21	1.05	1.18	ASTM-D-792
Viscosity, at 77°F (25°C), cP	7,770	250	2,400	ASTM-D-2196
Gel time, at 77ºF (25°C), 100 gms, minutes	--	--	65	ASTM-D-2471
Shelf life, at 77ºF (25°C), unopened, months	12	12	--	--

MIX RATIO
To 100 parts by weight of Epocast 50-A1 resin, add 14 parts by weight of Hardener 9816. Mix both components thoroughly for several minutes to insure a complete and uniform mixture. Mix only that quantity which can be applied within several minutes after mixing to avoid excessive exotherm.

CURE SCHEDULE: Five days at 77ºF (25°C) or two hours at 170-200ºF (77-93°C) after room temperature gel. Handling and machining may be done after 16-24 hours at room temperature.

TYPICAL CURED PROPERTIES (Not for specification purposes)

Test	Results			Test Method
	Cure 7 days at 77ºF*	Cure 27 days at 77°F*	Cure 1 day at 77ºF + 2 hr. at 170ºF*	
	12-ply laminate using #1581 or 7781 glass			
Compressive strength, Ksi (MPa) at 77ºF (25°C)	45.86 (316)	49.00 (338)	46.24 (319)	ASTM-D-790
Compressive modulus, Msi (MPa)	3.52 (24.3)	3.13 (21.6)	4.16 (28.7)	ASTM-D-790
Flammability, 60 second vertical test				
self extinguishing time, sec.	0		0	
drip extinguishing time, sec.	0		0	
burn length, in. (cm)	<6 (<15)		<6 (<15)	FAR 25.853A

* 77°F=25°C; 170°F=77°C

STORAGE/ SHELF LIFE: Epoxy resins and hardeners should be stored in a dry place in their original, sealed containers at temperatures from 60-100°F (16-38°C). Material temperatures should be above 65°F (18°C) when mixing. After use, tightly reseal containers.

Under these conditions, epoxy resins and hardeners will remain useable for 12 months from date of shipping from Huntsman.

CAUTION:

Huntsman Advanced Materials Americas Inc. maintains up–to-date Material Safety Data Sheets (MSDS) on all of its products. These sheets contain pertinent information that you may need to protect your employees and customers against any known health or safety hazards associated with our products. Users should review the latest MSDS to determine possible health hazards and appropriate precautions to implement prior to using this material. Copies of the latest MSDS may be requested by calling our customer service group at 800-367-8793 or emailing your request to adhesives_group@huntsman.com.

FIRST AID!

Eyes and skin: Flush eyes with water for 15 minutes. Contact a physician if irritation persists. Wash skin thoroughly with soap and water. Remove and wash contaminated clothing before reuse.
Inhalation: Remove subject to fresh air.
Swallowing: Dilute by giving water to drink and contact a physician promptly. Never give anything to drink to an unconscious person.

KEEP OUT OF REACH OF CHILDREN

FOR PROFESSIONAL AND INDUSTRIAL USE ONLY

IMPORTANT LEGAL NOTICE:

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