2110A RESIN
9226B, 9227B, 9260B & 9262B HARDENERS

EPOXY RESIN SYSTEMS FOR INFUSION AND INJECTION

TECHNICAL DATA BULLETIN

SYSTEM BENEFITS:

CPD 2110A Resin with CPD 9226B, 9227B, 9260B, or 9262B Hardener is a low viscosity epoxy laminating system designed for the infusion and RTM processes. The low viscosity and reactionary chemistry of this resin system assure maximum wet-out of fiberglass, carbon fiber and Kevlar® fibers.

- Laminating
- Four hardener options provide versatility with CPD 2110A Resin
- Post cure options provide HDTs up to 200°F

HANDLING PROPERTIES	CPD 9226B	CPD 9227B	CPD 9260B	CPD 9262B	Test Method
Resin Density at 25°C, lbs/gal	9.6	9.6	9.6	9.6	ASTM D1475
Hardener Density at 25°C, lbs/gal	7.9	8.0	8.2	8.3	ASTM D1475
Resin Viscosity at 25°C, cP	1,200	1,200	1,200	1,200	ASTM D2196
Hardener Viscosity at 25°C, cP	15	20	30	40	ASTM D2196
Mix Ratio by Weight	100A : 28B	100A : 28B	100A : 28B	100A : 29B	Calculated
Mix Ratio by Volume	3A : 1B	3A : 1B	3A : 1B	3A : 1B	Calculated
Initial Mixed Viscosity 25°C, cP	300	300	300	300	ASTM D2196
Gel Time at 25°C, 150g mass, minutes	460	130	50	35	ASTM D2471

PHYSICAL PROPERTIES	CPD 9226B	CPD 9227B	CPD 9260B	CPD 9262B	Test Method
Color	Straw Yellow	Straw Yellow	Straw Yellow	Straw Yellow	Visual
Izod Impact, Notched, ft-lb/in	1.01	1.09	1.12	1.18	ASTM D256
Tensile Strength, psi	9,300	10,300	10,800	11,400	ASTM D638
Tensile Modulus, psi	410,000	421,000	425,000	428,000	ASTM D638
Tensile Elongation, %	7.3	7.2	7.2	7.1	ASTM D638
HDT, Room Temp Cure, °F	130	130	135	140	ASTM D648
HDT, Post Cure, °F	175	190	200	200	ASTM D648
Compressive Strength, psi	11,700	13,800	14,200	14,800	ASTM D695
Flexural Strength, psi	15,000	17,500	18,400	19,500	ASTM D790
Flexural Modulus, psi	460,000	496,000	479,000	489,000	ASTM D790
Hardness, Shore D	83	84	84	84	ASTM D2240
Linear Shrinkage, in/in	<0.002	<0.002	<0.002	<0.002	ASTM 2566

SYSTEM POST CURE OPTIONS:

Select one of the following cure schedules depending on the available time, the physical properties of the mold and the desired physical properties of the final part. Post cure the part to obtain maximum physical and thermal properties of the system. The recommended post cure temperature ramp rate between stages is up 5°F per minute for heating and down 1-2°F per minute for cooling. Heating and cooling ramp rates can vary based on size and thickness of the part. For larger thicker parts use a more conservative ramp. If you need to deviate from the recommended post cure schedule, please contact our technical service department.

CURE INCREMENTS:

CPD 9226B, 9227B, 9260B & 9262B	24 Hours at 77°F (25°C)	7 Days at 77°F (25°C)	4 Hours at 120°F (49°C)	4 Hours at 150°F (66°C)	2 Hours at 180°F (82°C)	4 Hours at 180°F (82°C)
Room Temperature Cure	Supported	Unsupported				
Post Cure Option 1	Supported			Unsupported	Unsupported	
Post Cure Option 2			Supported			Unsupported

MIXING AND SURFACE PREP:

Always use the recommended mix ratio for the system. Do not deviate in an attempt to speed up or slow down gel time. Mix together thoroughly, scraping sides and bottom of mixing container, until no streaks or striations are visible, then use immediately. Use only clean dry tools for mixing and applying. Do not mix or apply below 60°F. All surfaces must be clean, dry, and free of any surface contamination. Molds and patterns should be treated with release or parting agents.

STORAGE AND CRYSTALLIZATION:

Store between 60-90°F in a dry place. After use, tightly reseal all containers and store products on a raised surface during cold weather and avoid storing near outside walls or doors. If available, Purge with dry nitrogen to preserve color and minimize moisture contamination. Do not allow to freeze during winter storage. Do not use material with any signs of crystallization such as solid chunks, grainy texture or white color. Crystallization can be reversed by heating the material to 125-140°F, and stirring occasionally, until all crystals dissolve.

SAFETY HANDLING:

Wear protective gloves, clothing, and eye/face protection. Use only outdoors or in a well-ventilated area. Avoid contact to the skin and eyes. Avoid breathing dust, fumes, gas mist, vapors and spray. Wash hands thoroughly after handling. Take off contaminated clothing and wash before reuse. These products may cause skin and respiratory allergic reactions. Consult product Safety Data Sheets for complete precautions for use of this product.

Polytek Development Corporation has experience only in the compounding of resins and hardeners and not in the actual manufacture of tools or parts. Each piece is different. The user should run tests to assure the suitability of the system for use in a particular application. The test data and results set forth herein are based on laboratory work and do not necessarily indicate the results that the buyer or user will attain.

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