



**PROBUILD
MARINE EPOXY
SYSTEMS
LAMINATING SYSTEM**

PRODUCT BULLETIN



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DESCRIPTION

ProBuild Marine Epoxy Systems are convenient, easy-to-use, 100% solids systems developed solely for building, repairing or restoring any type of marine vessel. The versatility of the ProBuild epoxy systems make them ideal for use in standard wet lay-up, vacuum bagging or resin infusion operations with a wide range of reinforcements. These systems can also be mixed with a variety of fillers for fairing, filleting or bonding applications. ProBuild marine epoxy systems consist of one base resin and a selection of four separate hardeners to suit your application needs. These systems are all mixed at convenient 3:1 volumetric mix ratios and can be metered through our calibrated push pumps or various types of dispensing equipment, which eliminates the need for scales or guesswork associated with other types of epoxy systems. In addition to the high strength and durability of the ProBuild epoxy systems, the low viscosity allows for better wet-out resulting in lighter, stronger, void-free parts without experiencing run out on vertical surfaces. The unique chemistry of the ProBuild systems provides maximum physical properties, reduces curing exotherm and minimizes blush, making these systems more trouble free than ever for the marine craftsman and architect. For long term performance and lower maintenance, try one of the ProBuild systems today.

ProBuild Marine Epoxy Systems:

ProBuild Resin: High performance resin specifically formulated for use with any of the following hardeners to produce the highest quality marine laminating system:

Fast & Cold Weather Hardener (cures at temps down to 40°F (5°C)).....	14 minute work life at 77°F (25°C)
Medium Hardener	34 minute work life at 77°F (25°C)
Slow Hardener	50 minute work life at 77°F (25°C)
Tropical Hardener	125 minute work life at 77°F (25°C)

BENEFITS

- Above or Below Water Line Applications
- Convenient volumetric mix ratios
- Can be used in various applications including laminating, bonding, fairing, wood coating or sealing
- Unique chemistry resulting in higher physical properties while minimizing blush
- Ideal for use with a variety of reinforcements including fiberglass, Kevlar and carbon fiber
- Excellent wet-out and air release attributes resulting in less resin usage, saves money
- 100% Solids – No Solvents
- UV Stabilized

TYPICAL HANDLING CHARACTERISTICS @ 77°F (25°C)

	<u>FAST</u>	<u>MEDIUM</u>	<u>SLOW</u>	<u>TROPICAL</u>
Mix Ratio (parts by weight)	100R/28H	100R/28H.....	100R/28H	100R/28H
Mix Ratio (parts by volume).....	3R/1H	3R/1H.....	3R/1H	3R/1H
Mixed Viscosity (Brookfield)	900-1100 cps.....	900-1100 cps	900-1100 cps	460 cps
Pot Life	14 minutes.....	34 minutes	50 minutes.....	125 minutes
Specific Gravity	1.11 g/cc.....	1.11 g/cc	1.11 g/cc.....	1.11 g/cc
Sanding Time	5-7 hours	12-16 hours.....	24 hours	24 hours
Color.....	Lt Amber.....	Lt Amber	Lt Amber.....	Lt Amber
Complete Cure	7 days.....	7 days	7 days.....	7 days
V.O.C.....	none	none.....	none	none
Shelf Life R & H (in original unopened containers).....	2 years.....	2 years	2 years	2 years

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TYPICAL CURED PHYSICAL PROPERTIES (Neat Resin)

	<u>FAST</u>	<u>MEDIUM</u>	<u>SLOW</u>	<u>TROPICAL</u>
Tensile Strength (ASTM D-638)	7,643psi..... (53MPa).....	6,631psi..... (46MPa).....	8,543psi..... (59MPa).....	8,954psi..... (62MPa).....
Tensile Elongation (ASTM D-638)	2%.....	1.34%.....	2%.....	2%.....
Tensile Strength* (ASTM D-638)	33,171psi..... (229MPa).....	30,269 psi..... (209MPa).....	31,910 psi..... (220MPa).....	25,900psi..... (179MPa).....
Flexural Strength (ASTM D-790)	12,876psi..... (89MPa).....	10,422 psi..... (72MPa).....	10,330psi..... (71MPa).....	12,820psi..... (88MPa).....
Flexural Strength* (ASTM D-790)	20,936psi..... (144MPa).....	34,896 psi..... (241MPa).....	30,690psi..... (212MPa).....	26,070psi..... (180MPa).....
Flexural Modules (ASTM D-790)	520,500psi..... (3,589MPa).....	523,500psi..... (3,609MPa).....	529,500psi..... (3,651MPa).....	542,900psi..... (3,743MPa).....
Compressive Strength (ASTM D-695)	17,761psi..... (123MPa).....	17,789psi..... (123MPa).....	17,461psi..... (120MPa).....	14,660psi..... (101MPa).....
Impact Strength (ASTM D-256)	6.86 in-lbf/in.....	4.25 in-lbf/in.....	4.45 in-lbf/in.....	8.76 in-lbf/in.....
Heat Deflection Temp (ASTM D-648)	129°F (54°C).....	121°F (49°C).....	118°F (47°C).....	115°F (46°C).....
Ultimate Tg by DSC (cured 12 hours @ 167°F (75°C))	na.....	na.....	188°F (87°C).....	na.....
Moisture Absorption (ASTM D-570)	0.36%.....	0.38%.....	0.37%.....	0.31%.....

(*)Denotes testing conducted on a 6 ply/10oz laminate.

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