



# PROBUILD MARINE EPOXY SYSTEMS

PRODUCT BULLETIN



## LAMINATING SYSTEM

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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 5°C/40°F) .....	14 minute work life at 25°C/77°F
Medium Hardener .....	34 minute work life at 25°C/77°F
Slow Hardener .....	50 minute work life at 25°C/77°F
Tropical Hardener .....	125 minute work life at 25°C/77°F

### 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

### HANDLING CHARACTERISTICS @ 25°C/77°F

	<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
Mixed Density.....	9.3 lbs/gal.....	9.3 lbs/gal.....	9.3 lbs/gal .....	9.3 lbs/gal
Mixed Density.....	0.040 lbs/in <sup>3</sup> .....	0.040 lbs/in <sup>3</sup> .....	0.040 lbs/in <sup>3</sup> .....	0.040 lbs/in <sup>3</sup>
Specific Gravity .....	1.11 grams/cc ..	1.11 grams/cc ..	1.11 grams/cc ..	1.11 grams/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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<b><u>PHYSICAL PROPERTIES (Cast Bar)</u></b>	<b><u>FAST</u></b>	<b><u>MEDIUM</u></b>	<b><u>SLOW</u></b>	<b><u>TROPICAL</u></b>
Tensile Strength (ASTM D-638.94b).....	7,643 psi .....	6,631 psi .....	8,543 psi .....	8,954 psi
Tensile Elongation (ASTM D-638.94b) .....	1.74% .....	1.34% .....	1.98% .....	1.73%
Tensile Strength* (ASTM D-638.94b) .....	33,171 psi .....	30,269 psi .....	31,910 psi .....	25,900 psi
Flexural Strength (ASTM D-790.92) .....	12,876 psi .....	10,422 psi .....	10,330 psi .....	12,820 psi
Flexural Strength* (ASTM D-790.92) .....	20,936 psi .....	34,896 psi .....	30,690 psi .....	26,070 psi
Flexural Modules (ASTM D-790.92) .....	520,500 psi .....	523,500 psi .....	529,500 psi .....	542,900 psi
Compressive Strength (ASTM D-695.91) .....	17,761 psi .....	17,789 psi .....	17,461 psi .....	14,660 psi
Impact Strength (ASTM D-256.93a) .....	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-648.82) .....	54°C/129°F .....	49°C/121°F .....	47°C/118°F .....	46°C/115°F
Ultimate Tg by DSC (cured 12 hours @ 75°C) .....	na .....	na .....	86.8°C/188°F .....	na
Moisture Absorption (ASTM D-570.81).....	0.36% .....	0.38% .....	0.37% .....	0.31%

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

ProBuild Tech/Revised 1/28/10  
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