TAP MARINE GRADE MEDIUM 109 HARDENER

ISO 9001 QUALITY ASSURANCE
ISO 9001-2000
FM62236

DESCRIPTION: Aliphatic polyamine hardener. Very clear, low viscosity, high strength with fast thin film set times and good color stability. Minimum skin irritation potential and toxicity. Easy to use 4:1 volumetric mix ratio. No solvents, 100% solids. DOT non-regulated. Requires ambient temperature of 75-85ºF for best cure. Lower temperature may inhibit cure.

SUGGESTED USES:

Hand lay up laminating, press molding, marine construction, vacuum bagging & casting.

PROPERTIES OF MARINE GRADE 109 HARDENER:

Viscosity at 77°F, cps	550 – 650
Color (Gardener)	1+
Weight Per Gallon	8.5lbs
Mix Ratio, Parts Per 100 of Resin	22 by weight (4:1 volume)
Gel Time (150 grams)	20 – 30 minutes
Thin Film Set Time, Hours	4

PROPERTIES WHEN CURED WITH MARINE GRADE 314 RESIN:

(Cure schedule: Gel at ambient + 2 hours at 212°F or 7 days at 77°F)

HDT, °F	125	ASTM D648-264
Shore D Hardness	78	
Flexural Strength, psi	14,800	
Flexural Modulus, psi	403,100	
Tensile Strength, psi	6,090	
Tensile Modulus, psi	362,500	
Elongation %	5.0	

SAFETY PRECAUTIONS:

Health Considerations: Consult the TAP Plastics Material Safety Data Sheets.

This chemical system requires the use of proper safety equipment and procedures. Please follow the TAP Plastics product MSDS for detailed information and handling guidelines.

For Your Protection:

The information and recommendations in this publication are, to the best of our knowledge, reliable. Suggestions made concerning the products and their uses, applications, storage and handling are only the opinion of TAP Plastics. Users should conduct their own tests to determine the suitability of these products for their own particular purposes and of the storage and handling methods herein suggested. The toxicity and risk characteristics of products made by TAP Plastics will necessarily differ from the toxicity and risk characteristics developed when such products are used with other materials during a manufacturing process. The resulting risk characteristics should be determined and made known to ultimate end-users and processors. Because of numerous factors affecting results, TAP Plastics makes no warranty of any kind, express or implied, other than that the material conforms to its applicable current Standard Specifications. TAP Plastics hereby disclaims any and all other warranties, including but not limited to those of merchantability or fitness for a particular purpose. No statements made herein may be construed as a representation or warranty. The liability of TAP Plastics for any claims arising from or sounding in breach of warranty, negligence, strict liability, or otherwise shall be limited to the purchase price of the material.