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 75-85°F 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.