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# Four to One Epoxy Resin and Hardener

Description of Resin • Four-to-One is a fast curing system ideal in areas requiring a hard, chemically resistant surface (such as tank linings). Accurate measuring of the 4 to 1 ratio is important for maximum physical properties. A rigid epoxy resin based on Bis-A. Low toxicity and odor. Viscosity similar to laminating polyesters. Resin allows fast and efficient wetting of reinforcement materials. 100% solids, in comparison with other epoxies.

## **Properties of Resin**

Viscosity @ 77 °F	500 -700 cps
EEW (Epoxied Equivalent Weight)	195 - 205
Color (Gardener)	3 (max)
Weight/Gal	9.2

Description of Hardener • Aliphatic mannich base hardener. Fast setting, even in thin films. Good low temperature performance. Excellent chemical resistance. Low viscosity allows fast wetting of fiberglass reinforcements. Easy to use four-to-one mix ratio. 100% solids.

#### **Properties of Hardener**

Viscosity @ 77 °F, cps	1500
Mixed Viscosity	540
Weight per Active H	50
Color (Gardener)	6
Weight per Gallon	9.0 lbs
Mix Ratio	4:1 by Volume (100:22 by Weight)

### **Cured Properties of Four to One Epoxy** • *time to full cure 7 days*

	Pot Life (150 grams)	11 - 15 minutes
	Thin Film set Time, hours	1.5
	HDT (ASTM D648-264) °F	165
	Shore D Hardness	78
	Flexural Strength, psi	17,900
	Flexural Modulus, psi	377,000
	Tensile Strength, psi	9,450
	Tensile Modulus, psi	493,000
	Elongation %	5

Mixing • Use Four to One Epoxy at the recommended temperature range of 65° to 80°F. Use below 45°F is not recommended. Remove standing water. Surfaces must be free of contaminants such as dirt, oil or grease. Mold surfaces must be waxed or otherwise released prior to application of epoxies. Mix resin and hardener thoroughly for 2 to 3 minutes, scrape bottom and sides of mixing container often. Mix no more material than can be applied in 10 to 15 minutes.

Curing • Keep application at the recommended use temperature for a minimum of 24 hours. Full properties are developed in seven days at ambient temperatures.

Uses • Hand lay up laminating, marine construction, adhesive, vacuum bagging, tooling, fairing compounds, sealing wood or porous substrates, chemically resistant coatings and flooring.

How Supplied • TAP Plastics supplies Four to One Epoxy Resin in 1<sup>1</sup>/<sub>4</sub> Quart and 1<sup>1</sup>/<sub>4</sub> Gallon size kits.

Important • Work only in well ventillated areas. Wear protective chemical splash goggles and rubber gloves. Avoid contact with skin. Wash hands with soap and warm water after use.

#### Visit our website: tapplastics.com

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