



# AEROPOXY 458

## Epoxy Fairing Compound

### DESCRIPTION

AEROPOXY 458 is a two-component, thin paste, lightweight splining and fairing compound designed to be used as a final coating before laminating over foam, or priming and painting parts or structural components. Lower in viscosity than our AEROPOXY Light lightweight thixotropic paste compound, AEROPOXY 458 easily fills pinholes and other minor surface defects, quickly smoothing a rough surface. It cures rather quickly at room temp., is easily sanded, and provides a smooth durable surface for long trouble-free service.

The AEROPOXY 458 resin and hardener components combine readily, yielding a very smooth thin paste material. It readily wets the surface to which it is being applied, filling the smallest pinholes with ease. AEROPOXY 458 is designed to be applied in thin layers as a final spline coat, so it will not roll over pinholes or small defects, and it can be feathered to very a thin edge with no skips or drag. The cured material is slightly flexible, to give toughness and prevent cracking in thin films. This material has built-in moisture resistance, so the cured surface is blush-free, and will not gum up sandpaper in the finishing process.

### PRODUCT FEATURES

- LOWER VISCOSITY FOR EASY FILLING OF PINHOLES AND SMALL SURFACE DEFECTS
- LIGHTER MATERIAL WITH HIGH STRENGTH AND GOOD TOUGHNESS
- ADHERES VERY WELL TO FOAM, WOOD, COMPOSITES AND METAL SURFACES
- EASY TO MIX - EASY TO APPLY - EASY TO SAND - GOOD MATERIAL !

### PRODUCT SPECIFICATIONS

	AEROPOXY 458 Part A	AEROPOXY 458 Part B	ASTM Method
Color	Off White	Amber	Visual
Viscosity, centipoise	128,000 cps	100 cps	D2392
Specific Gravity, gms./cc	1.109	1.051	D1475
Mix Ratio, By Wt.	100 : 18		PTM&W
Pot Life, 4 fl. Oz. Mass @ 77°F	12 - 15 minutes		D2471

### HANDLING and CURING

AEROPOXY 458 is very easy to apply, either by brush or squeegee. A plastic squeegee works very well with AEROPOXY 458, as it's stiffer nature works the fairing compound onto the surface quickly and fills even the smallest pinholes. For very large surfaces, some users prefer to use a paint roller-type applicator for faster application. In any case, the AEROPOXY 458 readily wets the surface, fills defects and cures to an easily sandable surface.

AEROPOXY 458 cures completely at room temperature, and no additional heat is required for full cure. As with most room temperature curing epoxy systems, full properties will be reached in approximately 7 days. However, the material can be shaped, sanded and finished much sooner than this. AEROPOXY 458 has a short pot life so it will cure properly in the thin layers it has been designed to be applied. Generally, at normal ambient temperatures, AEROPOXY 458 will cure sufficiently to allow a second coating layer to be applied in a couple of hours. At this point, it will not be necessary to sand the material between layers. At these temperatures, after the required thickness of material has been applied, AEROPOXY 458 can usually be sanded in 4 to 6 hours. These times assume a shop environment of around 75°F. Warmer conditions will accelerate the curing time, and cooler temperatures will lengthen the times. Before primers, paints or other finishes are applied to the cured AEROPOXY 458 it should be lightly sanded to roughen the surface slightly and improve the adhesion of the finish.

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### TYPICAL MECHANICAL PROPERTIES

	AEROPOXY 458 A/B	ASTM Method
Mix Ratio, By Weight	100 : 18	PTM&W
Pot Life, @ 77°F	12 - 15 minutes	D2471
Color	Off White	Visual
Mixed Viscosity, @ 77°F, centipoise	88,000 cps	D2393
Cured Hardness, Shore D	87 Shore D	D2240
Specific Gravity, grams, cc	1.10	D1475
Density, lb./cu. Inch lb./gallon	0.0397 9.2	D792
Specific Volume, cu. in./lb.	25.2	D792
Tensile Strength, psi	7,403 psi	D638
Elongation at Break, %	1.46 %	D638
Tensile modulus, psi	488,247 psi	D638
Flexural Strength, psi	12,304 psi	D790
Flexural Modulus, psi	555,615 psi	D790
Compressive Strength, psi	10,555 psi	D695
Water Absorption, (Overnight Soak @ 150°F)	1.43 %	D570
Glass Transition Temperature, Tg	182°F	DMA
Thermal Coefficient of Expansion Range: 100°F - 160°F	7.54 x 10 <sup>-5</sup> in. / in. / °F	D696

### PACKAGING WEIGHTS

	Quart	Gallon	Pail
AEROPOXY 458 Part A	2 lb.	8.25 lb.	44 lb.
AEROPOXY 458 Part B	.4 lb.	1.5 lb.	8 lb.
Kit	2.4 lb.	9.75 lb.	52 lb.

### SAFETY and HANDLING

PTM&W epoxy products are made from raw materials carefully chosen to minimize or even eliminate toxic chemicals, and therefore offer the user high performance products with minimum hazard potential when properly used. Generally, the PTM&W epoxy resins and hardeners will present no handling problems if users exercise care to protect the skin and eyes, and if good ventilation is provided in the work areas. However, all epoxy resins and hardeners can be irritating to the skin, and prolonged contact may result in sensitization; and breathing of mist or vapors may cause allergenic respiratory reaction, especially in highly sensitive individuals. As such, avoid contact with eyes and skin, and avoid breathing vapors. Wear protective rubber apron, clothing, gloves, face shield or other items as required to prevent contact with the skin. In case of skin contact, immediately wash with soap and water, followed by a rinse of the area with vinegar, and then a further wash with soap and water. The vinegar will neutralize the hardener and lessen the chances of long term effects. Use goggles, a face shield, safety glasses or other items as required to prevent contact with the eyes. If material gets into the eyes, immediately flush with water for at least 15 minutes and call a physician. Generally, keep the work area as uncluttered and clean as possible, and clean up any minor spills immediately to prevent accidental skin contact at a later time. Keep tools clean and properly stored. Dispose of trash and empty containers properly. Do not use any of these types of products until Material Safety Data Sheets have been read and understood.

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