



# POXY COATING

## FOR LONGER LASTING PROTECTION

Specially Formulated for Non-Corrosive, Non-Abrasive,  
Acid Resistant, Highly Flexible, Permanent Hard Finish.

FOR: Aircraft, Boats, Marine, Chemical Plants, Petroleum, Off-Shore Rigs,  
Tanks, Drums, Underwater Fittings, Fiberglass, Electronics, Ceramics and  
Aerospace Projects.

15 STOCK COLORS AND CLEAR – Other Colors Matched to Order  
Available in Pint, Quart, Gallon, Five Gallon and 55 Gallon Kits

## • POXY COATING...WHAT IS IT?

"POXY COATING" is Permalite's trade name for coatings manufactured from epoxy resins that are anti-corrosive, acid-resistant, anti-abrasive, which provide durable protection for metal, wood, fiberglass, cement and other surfaces by actually locking into the surface as a permanent bond while retaining more flexibility than other finishes. For best results they should be applied by conventional spray methods on bare surfaces, in most cases without any primer coat. POXY COATING is manufactured in strict conformance to specifications developed by **Permalite Plastics Corporation**.

## • WHAT DOES RESIN' EPOXY MEAN?

"Epoxy Resin" can be defined as "Epichlorohydrin and Bisphenol chemically combined to produce an entirely new type of synthetic pale amber resin". It is recognized in the field of plastics as the strongest and most tenacious of resins. POXY COATING has an epoxy resin base, which gives maximum tensile and flexural strength and tremendous adhesive qualities even at extremely high and low temperatures, from -70°F. to 600°F., for intermittent periods.

## • HOW IS POXY COATING APPLIED?

The surface to be coated must be thoroughly clean and dry. Sandblasting is the recommended means for cleaning; however steam cleaning, sanding or washing with acetone, MIBK or MEK is also satisfactory. All oxidation, old coatings, grease, oil, fingerprints, etc. must be removed. Once mixed, and having gone through a proper induction period, POXY COATING is ready for application. It can be sprayed or brushed. Ordinary commercial spray guns can be used with pressures from 50 to 80 PSI. Spray a fog coat on the surface, allow to tack (approximately 30 minutes) and apply a wet spray coat. Two coats are sufficient except where application is being made on a porous surface, in which case three coats may be required.

The application should be made at room temperature, or not less than 65°F., in order to insure continuous curing. To avoid the possibility of blushing, do not apply when the relative humidity is more than 50%. While the "pot life" of the material is approximately 24 hours after addition of the catalyst, the action of curing or hardening commences immediately upon application to the surface and the release of the solvent from the coating. It will be dry to the touch in approximately two hours and thoroughly cured overnight. The process can be speeded up by the application of heat to the painted surface. Because the material is almost impossible to remove, once it has hardened, clean up should be performed immediately after application of the paint.

## • IS THINNER NECESSARY?

POXY COATING is supplied in brushing consistency. Normally in 70°F. weather no thinner is necessary. However, it is customary to order at least a quart to a gallon of Thinner ET-7 with each order so that if the application temperature is higher, thinner will be available. Also, the thinner can be used for clean up after the painting is completed. Use only **Permalite Thinner ET-7**.

## • AFTER-APPLICATION MAINTENANCE

Once POXY COATING has been applied to the surface, it can be cleaned to remove oil, grease, etc. with any ordinary solvent such as gasoline or kerosene, without affecting the finish. Occasional waxing with automobile type wax will help protect the high luster of the gloss finish. When touching up surfaces coated with POXY COATING, the same surface preparation and application procedures should be followed. POXY COATING will adhere readily to an already cured or painted surface, but the surface should be roughened slightly with sandpaper before applying the coating.



## ADVANTAGES OF POXY COATING PAINT



• **SAVE TIME, MONEY  
and GET  
THE JOB DONE NOW!**

- POXY COATING gives excellent, permanent bonds to magnesium, stainless steel, aluminum and other alloys. It has been applied in thin layers of 3 to 5 mils.
- Exceptional resistance to synthetic oils and hydraulic fluids such as skydrol and No. 7808 Engine oil.
- Highly stable at extreme temperatures.
- Reduces maintenance expense to a minimum.
- Easy application—any standard spray equipment may be used.
- Up to 30% more area coverage.
- No primer required in most applications.
- No baking—completely air drying.
- A permanent hard finish—non-corrosive—highly flexible.

### SUPPLIED AS KITS:

#### PINTS

N-SERIES 1 Pint "A" + 1 Pint "B"  
E-SERIES 1 Pint "A" + 1/2 Pint "B"

#### QUARTS

N-SERIES 1 Quart "A" + 1 Quart "B"  
E-SERIES 1 Quart "A" + 1 Pint "B"

#### GALLONS

N-SERIES 1 Gal. "A" + 1 Gal. "B"  
E-SERIES 1 Gal. "A" + 1/2 Gal. "B"

#### FIVE GALLONS

N-SERIES 5 Gal. "A" + 5 Gal. "B"  
E-SERIES 5 Gal. "A" + 2 1/2 Gal. "B"

**55 Gallon Drums Available on Request.**

### MIXING

POXY COATING kits may be readily mixed by hand stirring, after combining base "A" with catalyst "B" in the following ratios:

**POXY COATING N-SERIES:** For Brushing — Mix 1 Part Base "A" with 1 Part Catalyst "B"

**POXY COATING E-SERIES:** For Brushing — Mix 2 Parts Base "A" with 1 Part Catalyst "B"

**For spraying, thin to desired viscosity with ET-7.**



## SPECIFICATIONS

Physical & chemical properties of cured "POXY COATING" (Average)

Specific Gravity 20/20 deg. C.	1.19
Barcol Hardness	36
Thermal Coefficient of Expansion, linear (ASTM D696-44)	6.7 x 10 <sup>-5</sup>
Coefficient of Thermal Conductivity	/ deg. C.
Cal./sec/cm <sup>2</sup> /OC/cm	4.8 x 10 <sup>-4</sup>
Btu./sec/ft <sup>2</sup> /°F/in.	3.9 x 10 <sup>-4</sup>
Water Absorption (ASTM D570-42)	
24 hours	.07%
1 week	.20%
1 month	.47%
Water vapor transmission (g./sq. meter/24 hrs. on a 10 mil film at 77°F. 0 Rel. Hum. one side, 50% Rel. Hum. on other)	1.0
Stability to chemicals (ASTM D543-43)	
Percentage gain in weight after one month's immersion in:	
Ethyl alcohol	.75%
Benzene	.26%
Ageing: Weight loss of 1/8th sections after conditioning at 50% Rel. Hum. and 77°F.	
18 hours at 85°C.	.026%
16 hours at 195°C.	1.05%
Tensile Strength (ASTM D638-49T)	8,000 psi
Elongation	1.6%
Modulus	.66 x 10 <sup>6</sup>
Tensile Strength at 54°C.	8,800 psi
Elongation	1.5%
Modulus	.65 x 10 <sup>6</sup>
Compressive Strength (ASTM D790-49T)	18,400 psi
Compression, ultimate	5.5%
Tensile Strength at -57°C.	9,000 psi
Elongation	1.7%
Modulus	.65 x 10 <sup>6</sup>
Flexural Strength (ASTM D790-49T)	21,000 psi
Modulus	.54 x 10 <sup>6</sup>
Impact Strength IZOD (ASTM D256-47T)	.36 ft. lb.
	/in. of notch

## COLORS

15 colors and clear are stocked for immediate shipment. All colors are readily intermixable to obtain a variety of shades. Permalite Plastics will custom mix colors to match, upon order. Request Bulletin B-22, Poxy Coating Color Selector, for printed color samples.

## PACKAGING & APPLICATION

POXY COATING IS SUPPLIED AS A KIT: Base Part "A" and Catalyst Part "B" in Pint, Quart and Gallon Kits.

POXY COATING N-SERIES is recommended for general exterior conditions, water immersion, exposure to salt spray, salt water, etc. It is used extensively on aircraft, boats and ships.

POXY COATING E-SERIES is recommended for use where extremely corrosive conditions exist. It is resistant to most chemicals and is heat resistant up to about 250°F.

POXY COATING COVERAGE:

SPRAY METHOD: 400 to 500 square feet per gallon of mixed coating on a metal surface, one to two mils thick.

BRUSH METHOD: 250 to 400 square feet per gallon of mixed coating - depending upon the porosity of the surface.



40/2 ซอย 37/2 หมู่ 14 ถ.กิ่งแก้ว ต.ราชาเทวะ อ.บางพลี จ.สมุทรปราการ 10540  
 40/2 Soi 37/2 Moo 14 Kingkeaw Road, Rachatawa, Bangplee, Samutprakarn 10540  
 โทร/Tel. 0-2738-5088-99, 0-2175-2561-65 แฟกซ์/Fax. 0-2738-5299, 0-2738-4209  
 Website: [www.poolspa.co.th](http://www.poolspa.co.th) Email: [sales@poolspa.co.th](mailto:sales@poolspa.co.th)