

Marine Epoxy

Product Description

PIONEER MARINE EPOXY is a 100 % solids thermosetting plastic compound that forms strong bonds on a wide variety of rigid materials (i.e. glass, metals, ceramics, concrete, wood and some plastics except polyethylene, soft PVC and teflon). It is used as boat filler for hair line gaps, as a putting compound and as an adhesive.

Key Features

- Heavy-duty epoxy adhesive
- 100% solids content
- Solvent-free formulation
- Low VOC
- Non-flammable
- Non-shrinkable
- Water-resistant
- Solvent-resistant
- Chemical-resistant
- Sandable and Paintable



Product Specifications / Typical Properties / Physical Characteristics

Table 1. Wet Properties*

Parameters	Component A (RESIN)	Component B (HARDENER)
1. Appearance	Gray, soft paste	Beige, soft paste
2. Specific Gravity	1.84	1.65
3. Viscosity @ 25°C	1,100,000-2,200,000 cps	1,100,000-2,100,000 cps
4. Solids Content	100%	100%

Table 2: Mixed State Properties*

Parameters	Results
1. Mixing Ratio	1 part A: 1 part B (by volume)
2. Appearance	Gray
3. Potlife @ 24-33°C	60-120 minutes
4. Setting Time @ 24-33°C	4-8 hours

Applications (Ideas)

- Adhesive for boat building
- Gap sealer for wood imperfections and joints
- Repairing or restorations of wooden boat
- As putty (masilya) for wooden boat

Table 3. Cured State Properties*

Parameters	Results
1. Full cure time	72 hours
2. Hardness (after 24 hours), shore D	75 minimum
3. Shrinkage	nil
4. Water resistance	Excellent
5. Chemical Resistance	Resistant to oil, gasoline and most chemicals (not resistant to concentrated acids and solvents)
6. Weathering Resistance	Color will fade through time (epoxy-based products are typically not UV-resistant)
7. Lap Shear Strength (wood-wood) ASTM D905	700 psi
8. Tensile Strength ASTM D638	3000 psi
9. Flexural Strength ASTM D790	4700 psi
10. Compressive Strength ASTM D695	7400 psi

*Typical Values and characteristics only.

Application Procedure

A. Surface Preparation

Surface contaminants such as dirt, grease, oil or wax must be removed from areas to be joined. Clean surfaces by sanding, sandblasting or brushing for stronger

bonds. Surfaces should be clean and ready for application before the adhesive is mixed.

B. Mixing

Mix equal parts by volume of components A and B. Better to use separate spatulas (or spoon) to avoid contamination. Blend thoroughly until color streaks disappear and a uniform color is obtained. To avoid loss of application time and wastage, mixing would be accomplished within 5 minutes and prepare a mixture quantity just enough to be consumed within the pot life period.

C. Method

1. Apply mixed compound with a putty knife or spatula on one or both faces of glue joints.
2. Join surfaces with sufficient pressure to ensure complete contact.
3. Allow to cure or to harden.
4. Unnecessary handling should be avoided until cure is complete. On its uncured state, scrape off excesses from edges or joints or immediately spread out the mixture on surfaces to be settled, filled or patched.

D. Cleaning

Clean all tools or equipment used while adhesive is still in its uncured state. Use Pioneer Epoxy Reducer or solvents to clean tools and spills.

Packaging

SKU	Packaging	Weight of set, kg	Quantity per box
Gallon set	Tin Can	11.00	2 sets
Quart set	Tin Can	2.80	6 sets
Pint set	Tin Can	1.40	12 sets
1/2 Pint set	Tin Can	0.70	24 sets
1/4 Pint set	Tin Can	0.27	50 sets

Certification and Compliance

Type	Component A	Component B	Limits
Lead (Pb) content, ppm	<5	<5	<ul style="list-style-type: none"> • Maximum concentration value (MCV) allowed is <1000 ppm

Storage

Store in a dry place at ambient temperature. Keep containers tightly closed, when not in use.

Shelf Life

24 months from manufacturing date when kept in a sealed, unopened container following the required storage condition.

Health and Safety Precautions



WARNING

Hazards

Causes skin and eye irritation. May cause an allergic skin reaction.

Precaution

Wash skin thoroughly after handling. Wear protective gloves/clothing/eye/face protection. Contaminated work clothing should not be allowed out of the workplace.

If on skin or hair: Wash with plenty of soap and water. Take off contaminated clothing and wash before re-use. If skin irritation or rash occurs, get medical attention.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice/attention.

Collect spillage.

KEEP OUT OF REACH OF CHILDREN.

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