



Formulated Systems Group

**RP 1250
ALUMINUM FILLED TOOLING AND REPAIR PASTE**

DESCRIPTION: REN® RP 1250, a gray, two-part epoxy aluminum filled paste, combines the adhesive characteristics of epoxy with the filing and machining characteristics similar to aluminum. Resin and hardener are easily mixed in a 1 to 1 ratio, producing a paste with unlimited maintenance uses and many tooling applications. This easy-to-use paste can be formed into any shape without heat or pressure and bonds to a variety of metals, ceramics, glass, concrete, and wood.

MIXING INSTRUCTIONS: Reaction Ratio 100R to 100H by wt.
100R to 100H by vol.

Mixing: Stir each component thoroughly before use. Weigh each component accurately ($\pm 5\%$) into clean containers. Thoroughly mix resin and hardener together (minimum 2-3 minutes) scraping container sidewalls, bottom and mixing stick several times to assure a uniform mix.

APPLICATIONS: Construction of jigs, nesting and holding fixtures
Filletts for metal patterns
Potting
Drill bushings
General repair of tools, dies, jigs, fixtures, models, and prototypes
Patching of concrete
Repair of leaks in pipe and ductwork
Filling cracks in metal casings

TYPICAL MIXED PROPERTIES:	Property	ASTM Test Method	Test Values ⁽¹⁾
	Gel time (189 g.)	D-2471	28 minutes
	Color Mixed	Visual	Gray
	Viscosity	D-2393	Paste
	Mixed Sag		Pass 1/2" Fail 1"

⁽¹⁾Tested @ 77°F (25°C)

(continued)



TYPICAL CURED PROPERTIES:	Property	ASTM Test Method	Test Values ⁽¹⁾
	Specific Gravity	D-792	1.52
	Cubic inch per lb.	D-792	18.2
	Hardness (Shore D)	D-2240	87-88
	Ultimate Compressive Strength (psi)	D-695	12,000
	Ultimate Flexural Strength (psi)	D-790	7,300
	Ultimate Tensile Strength (psi)	D-638	3,800
	Deflection Temperature (264 psi) (°F)	D-648	129
	Coefficient of Thermal Expansion (in/in/°F)	D-3386	2.16 x 10 ⁻⁵
	Shrinkage (in/in) Cast Mold #1	D-2566	0.0017
	Impact Strength, notched (ft-lb/in)	D-256	0.26
	Lap Shear Strength ² (psi) Cured 6 hrs. @ R.T. Cured 30 min. @ 80°C	D-1002	2,100 2,100

⁽¹⁾Cure Schedule - 7 days @ 77°F (25°C), tested @ 77°F

⁽²⁾Alclad 2024-T-3 aluminum degreased and acid etched according to ASTM D-2651, Method A.

Note: Typical Properties - These physical properties are reported as typical test values obtained by our test laboratory. If assistance is needed in establishing quality control specifications, please consult with our Quality Control Department.

CURING INSTRUCTIONS:

Although room temperature epoxies will normally set up to a rigid, demoldable state within 24 hours at room temperature (75°F ± 5°F), these systems reach their full cure after seven days at room temperature. A full cure can be accelerated by applying heat after the part has set rigid. We recommend a post cure of 150°F for a minimum of six hours. (Add to this adequate time to bring the part to the post cure temperature.) After cure, the part should be cooled at a slow rate so as not to shock the part thermally.

Uniform heat distribution is also required during post cure; concentrated heat, such as that directed from a lamp, can cause warp. An elevated temperature cure will slightly increase the shrinkage compared to a room temperature cure.

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**STORAGE/
HANDLING**

INFORMATION: RP 1250 Resin and Hardener

Store at 60-100°F in a dry place, after use tightly reseal.

Work in a well ventilated area and use clean, dry tools for mixing and applying. For two component system, combine the resin and hardener according to mix ratio. Mix together thoroughly and use immediately after mixing. Material temperature should not be below 65°F (18°C) when mixing.

SHELF LIFE: Provided this material is stored under the recommended storage conditions in their original containers, it will remain in useable condition for at least one year from date of shipping.

PACKAGING: This product is available in the following package size(s):

Small Preweighed Units = 6-qt. Resin/with 6 Preweighed Hardener

Please call Customer Service (800-367-8793) for price and availability.

**SAFETY/
HANDLING**

PRECAUTIONS: Do not use or handle this product until the Material Safety Data Sheet has been read and understood.

RP 1250 Resin

WARNING! Causes skin and eye irritation. May cause allergic skin reaction.

Avoid contact with eyes, skin, and clothing.
Avoid prolonged or repeated contact with skin.
Wash thoroughly after handling.

RP 1250 Hardener

DANGER! CORROSIVE. Causes eye burns and skin irritation. Harmful if absorbed through skin. May cause allergic skin and respiratory reactions.

Do not get in eyes. Avoid contact with skin and clothing.
Avoid prolonged or repeated contact with skin.
Avoid breathing vapor or mist. Keep container closed.
Use with adequate ventilation. Wash thoroughly after handling.

Nuisance dust may be generated when sanding or sawing cured material.

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FIRST AID: In case of contact

Skin: Immediately wash with soap and water. Remove contaminated clothing and launder before reuse. Destroy contaminated shoes.

Eyes: Immediately flush with water for at least 15 minutes. Call a physician.

Ingestion: If conscious, give plenty of water to drink. Do not induce vomiting. Call a physician.

Inhalation: Remove to fresh air. Administer oxygen or artificial respiration if necessary. Call a physician.

Other: Referral to physician is recommended if there is any question about the seriousness of any injury.

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