



**P-14  
ULTRA FILLER  
RIGID, MACHINABLE  
WHITE & GRAY**



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**DESCRIPTION**

The most versatile of all set-fast filler pastes, ULTRA FILLER P-14 is a two component filler system which yields a smooth, creamy, thixotropic and workable paste with superior handling, set-fast characteristics and dimensional stability. Once applied it forms a rigid, strong surface which can be machined, sanded, filed or scraped to a feather edge. P-14 adheres and bonds to fiberglass, SMC, RIM, BMC, Graphite, Kevlar® and other types of composites as well as aluminum, steel, gray iron, copper, plaster, models, patterns and other substrates. P-14 offers the industry manufacturer a wide variety of applications for bonding, filling, sealing and finishing with optimum physical properties. P-14 ULTRA FILLER can be applied without pin-holing and exhibits no shrink or sink after curing. It accepts virtually all types of finishes e.g., lacquer, enamel, polyurethane, epoxy, etc., without any special surface preparation. It is a "no bleed out" system after finishing or if covered with a decorative film. Its high quality, coupled with the set-fast feature offers industry substantial savings in time and labor plus top quality in the finished product. P-14 can be used in areas of final fabrication, production, tooling, model & pattern making, repair operations and in many other applications. **Typical applications include: filling composites surface porosity, honeycomb panel edge filler, bonding loose pieces and details, vacuum mold repair and modifications, urethane mold repairs and modifications, FRP composite repairs, pattern repairs and fillets, core box repairs and modifications, void and porosity filling, router fixture repairs, crack, dent and crevice repair, temporary holding fixtures, filling cloth impressions in pre-preg, non-conductive barrier potting, RIM/SMC/BMC surface filler, bonding inserts/hangers, urethane part repair, potting stripped threads, renewing worn surfaces and many others.**

**TYPICAL HANDLING CHARACTERISTICS @ 77°F (25°C)**

Mix Ratio with BPO Cream Hardener (parts by weight or volume).....	100R/2H
Resin Color Choices .....	White/Gray
BPO Cream Hardener Color Options .....	White/Red/Black
Mixed Viscosity .....	Thixotropic Creamy Paste
Specific Gravity .....	1.58 g/cc
Work Life (100 gram mass) .....	5 ± 1 minutes
Finish Schedule .....	15 minutes
Hardness after 1 hour .....	86 Shore D
Water Absorption (24 hour immersion) .....	0.16%
Shelf Life (in original unopened containers) .....	1 year
Storage Requirement.....	40°F - 80°F (4°C-27°C)

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**MIXING INSTRUCTIONS**

1. Stir contents of can thoroughly using a spatula or putty knife. Place the required amount of filler and cream hardener on a disposable clean surface.
2. Mix ratio: 100 parts paste to 2 parts BPO cream hardener by weight, i.e. size of golf ball (paste) to a two inch strip of catalyst.
3. Set up time of mix at room temperature will be 4-6 minutes.

**CAUTION: THE USE OF TOO MUCH HARDENER CAN CAUSE GUMMINESS IN THE FILLER.**

4. After 15-20 minutes the filler may be filed or sanded to final finish.

**CHEMICAL RESISTANCE GUIDE**

P-14 Ultra Filler combines saturated and unsaturated Polyester resins of medium to high reactivity. As an aid to the user, chemical resistance evaluations were conducted using a modification of ASTM 0543-60T.

**TESTING PROCEDURE**

Samples nominally sized at 1/2" x 1" x 4" were immersed halfway in 4 ounces of reagent and stored for 12 months at ambient temperature. Reagents were swirled monthly, and specimens were rated every 4 weeks.

**RATING RESULTS**

**Excellent, No Visible Attack**

Benzene  
Gasoline  
Methanol  
Mineral Spirits  
Water (Distilled)

**Good, Very Slight Attack**

Acetic Acid (5%)  
Citric Acid  
Hydrochloric Acid (10%)  
Nitric Acid (10%)  
Sodium Hydroxide (5%)  
Sulfuric Acid (10%)

**Not Recommended**

Acetone

**APPLICATION INSTRUCTIONS:**

- For best results, clean damaged areas thoroughly and remove any surface contaminants such as paint, oil, wax, dirt, etc.
- Allow surface to dry completely. Damp or wet surfaces can inhibit the bonding strength and curing of the filler paste.
- Sand damaged area. A slightly rough texture will provide a good surface for the filler to bond properly.
- Stir contents of can thoroughly using a spatula or putty knife. Place the required amount of filler and cream hardener on a disposable clean surface.
- Mix 100 parts resin paste to 2 parts cream hardener by volume (i.e. size of golf ball paste to a two-inch strip of cream hardener).
- Setup time of mix at room temperature will be 5-10 minutes and may be adjusted faster or slower by increasing or decreasing the amount of hardener.

**CAUTION: TOO MUCH HARDENER CAN CAUSE GUMMINESS IN THE FILLER**

- After 15-20 minutes the filler may be filed or sanded to a final finish

Typical Material Properties	Test Method	Test Value
% Water Absorbed	ASTM D-570	1.13%
Heat Resistance	N/A	350°F/177°C
Hardness	ASTM D-2240	Shore D 86
Adhesive Pull Strength	Test Method	Test Value
Polyester Filler	ASTM D-4541	1,717psi (12MPa)
Mahogany	ASTM D-4541	1,459psi (10MPa)
Epoxy Glass Laminate	ASTM D-4541	753psi (5MPa)
Aluminum	ASTM D-4541	2,940psi (20MPa)

Typical properties are only provided as a general guideline and are not to be construed as specification.

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