

TECHNICAL DATA SHEET

P-17

POLYESTER FILLER STYRENE FREE, HIGH TEMPERATURE, RIGID

DESCRIPTION

P-17 high heat resistant filler set-fast system has uses in aerospace, aircraft, automotive, tooling, manufacturing and final fabrication where potential exposure to elevated temperatures up to 204°C/400°F have to be tolerated either for short term or continuous periods. P-17 offers the user a smooth workable paste with set-fast cure to expedite those applications for repair or finish. P-17 can be applied with a squeegee, spatula or flat tool. The cured material can be finished by mechanical sanding, grinding, scraping, etc., to a feather edge. This filler has excellent adhesive and bond strength to fiberglass, SMC, BMC, RIM, FRP, epoxy, graphite and Kevlar® composites as well as aluminum, plaster and other substrates. P-17 high heat resistant filler when cured and finished accepts virtually all types of coatings and decorative film without any blush or discoloration. Typical applications include: Aircraft interior panels, FRP panels-filling cloth imprint, nose cone porosity, edge filling on honeycomb, changes & repairs to vacuum form molds, drill fixtures, potting bushings, gel-coat repairs on production molds, SMC mold porosity in molded parts, and many other applications.

PROPERTIES

- Exceptional adhesion
- High service temperature
- Comes in white,gray,black colors
- High gloss finish
- Excellent finishing and machinability
- Very quick setting
- Minimal shrinkage
- East to use
- Low moisture absorption
- Excellent shelf life

PHYSICAL PROPERTIES

	Units	P-17	Cream Hardener	Mixed
Composition		Polyester resin	BPO	Polyester paste
Mix ratio – by weight		100	2	100/2
Aspect		Grain free paste	Paste	Creamy paste
Color	Visual	White,Gray,Black	White, Black, Red	Varies
Density at 77°F (25°C)	lbs./gal (g/cc)	12.9 (1.54) – 14.8 (1.77)	10.0 (1.20)	12.8 (1.53) – 14.7 (1.76)
Pot life (102g) at 77°F (25°C)	Minutes			5.0 – 7.0

PROCESSING CONDITIONS

- Thoroughly blend 100 parts resin with 2 parts hardener by weight for 1 to 1 ½ minutes in a clean dry container or on a clean dry surface.
- Carefully scrape the surfaces while blending to ensure complete mixing and uniformity.

MIXING INSTRUCTIONS

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 paste to 2 parts BPO cream hardener by weight; i.e. size of golf ball (paste) to a two inch strip of BPO catalyst. Set up 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, the use of too much hardener can cause gumminess in the filler. After 15-20 minutes the filler may be filed or sanded to final finish.

SURFACE PREPARATION and APPLICATION

- The area to be filled or repaired should be thoroughly cleaned, roughened, cleaned again and allowed to dry prior to application to ensure the best possible adhesion.
- The mixed P-17 should be buttered into the area, avoiding trapping air during application.
- After curing to a tack-free state, the material can be sanded and finished as needed.

MECHANICAL PROPERTIES

MECHANICAL AND THERMAL PROPERTIES - Cure schedule: 7 days/77°F (25°C)			
Property	Test Method	Units(s)	Test Results
Hardness	ASTM D2240	Shore D	80
Flexural strength	ASTM D790	psi (MPa)	7,080 (49)
Tensile strength	ASTM D638	psi (MPa)	4,074 (28)
Tensile elongation	ASTM D638	%	1.16
Compressive strength	ASTM D-695	psi (MPa)	8,992 (62)
Coefficient of thermal expansion (CTE)	ASTM D-696	10 ⁻⁶ .°F-1 (°C)	24.5 (44)
Linear shrinkage (cast bar)	ASTM C-531	inch/inch	0.00982
Water absorption (%) 24 hr @ room temperature	ASTM D-570	%	.149
Peak service temperature		°F (°C)	400 / 204

HANDLING PRECAUTIONS

Normal health and safety precautions should be observed when handling these products:

- Ensure good ventilation.
- Wear gloves, glasses and protective clothes.

For further information, please consult the Safety Data Sheets.

STORAGE CONDITIONS

- Product shelf life of polyester resin is 12 months when stored in original unopened containers between 65 – 77°F (15 – 25°C). Any opened can must be tightly closed.
- Product shelf life of BPO hardener is 18 months when stored in original unopened containers between 65 – 77°F (15 – 25°C). Any opened can must be tightly closed.
- Polyester resin contains filler which has the potential to separate in time, please re-homogenize prior to use.

PACKAGING

Packaging information on request, please contact your local sales representative or find your local contact on www.sikaadvancedresins.us

CONTACT

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