

TECHNICAL DATA SHEET

SikaBiresin® AP017

(FORMERLY P-17)

POLYESTER FILLER SYSTEM
STYRENE-FREE / HIGH TEMPERATURE / RIGID

DESCRIPTION

SikaBiresin® AP017 high heat resistant filler set-fast system has uses in aerospace, aircraft, marine, automotive, tooling, manufacturing and final fabrication where potential exposure to elevated temperatures up to 200°C/392°F have to be tolerated either for short term or continuous periods. SikaBiresin® AP017 offers the user a smooth workable paste with set-fast cure to expedite those applications for repair or finish. SikaBiresin® AP017 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. SikaBiresin® AP017 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 panel-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, marine composite surface repair, automotive composite surface repair and many other applications.

PROPERTIES

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

PHYSICAL PROPERTIES

Composition		POLYESTER SikaBiresin® AP017	BPO HARDENER BPO	MIXED	
Mix ratio by weight		100	2		
Mix ratio by volume at 25 °C					
Aspect		Paste	Cream Paste	Paste	
Color	NOTE - Mixed color can be varied with Cream BPO color (As a mixing aid/indicator and final color choice)	White Gray Black	White Red Black		
Viscosity at 25 °C	(cPs) BROOKFIELD LVT			Paste	
Specific gravity at 25 °C	lbs./gal (g/cc)	ASTM D792	13.5 (1.62)	10 (1.20)	13.40 (1.61)
Pot Life at 25 °C (102 g)	(minutes)	ASTM D2471			5.0 – 7.0

MECHANICAL PROPERTIES at 23 °C ⁽¹⁾

Hardness (Shore D)		ASTM D-2240			80
Tensile Strength (psi)					4,074
Elongation at break (%)		ASTM D-638			1.16
Flexural Strength (psi)		ASTM D-790			7,080
Compressive Strength (psi)		ASTM D-695			8,992
Linear Shrinkage - cast bar (in./in.)		ASTM C-531			0.00982
Water absorption – 24 hr/R.T. soak (%)		ASTM D-570			0.149
Coefficient of thermal expansion (CTE)		ASTM D-696			
		10 ⁻⁶ .°F ⁻¹ / (°C)			24.5 (44)

(1) Average values obtained on standard specimens / Cured 7 days at 25°C

PROCESSING

PROCESSING CONDITIONS

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

SURFACE PREPARATION and APPLICATION

- The area to be filled or repaired should be thoroughly cleaned, roughened, cleaned again and dried to allow for 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.

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

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

LEGAL NOTICE

The information, and, in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request.

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