

## TECHNICAL DATA SHEET

# APF 4

### POLYESTER FILLER PREMIUM GRADE, LOW SHRINK

#### DESCRIPTION

APF 4 is a high quality, quick-setting filler designed for industrial applications. It has excellent mixing and handling properties and provides exceptional adhesion with a minimal amount of shrinkage. APF 4 bonds to a wide variety of materials including wood, aluminum, cast iron, cast steel, tool steel, copper, bronze, fiberglass (FRP and SMC), honeycomb paneling and urethane foam. With its fast set time and superb machining and finishing characteristics, APF 4 is a time saver. From application to finished repair, many jobs can be completed in less than 20 minutes

#### PROPERTIES

- Exceptional adhesion
- Very quick setting
- Excellent finishing / machinability
- Easy to use
- Minimal shrinkage
- Available in white, gray

#### PHYSICAL PROPERTIES

	Units	APF 4	Cream Hardener	Mixed
Composition		Polyester resin	BPO	Polyester paste
Mix ratio – by weight		100	2	100/2
Aspect		Thixotropic paste	Paste	Thixotropic paste
Color	Visual	White, Gray	White, Black, Red	Varies
Density at 77°F (25°C)	lbs./gal (g/cc)	13.7 (1.64)	10.0 (1.2)	13.6 (1.63)
Pot life (100g) at 77°F (25°C)	Minutes			4.0 – 7.0
Volumetric weight	lbs/in <sup>3</sup> (g/cc)			0.059 (1.63)

#### 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.

## 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 APF 4 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. 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.

<b>MECHANICAL AND THERMAL PROPERTIES - Cure schedule: 7 days/77°F (25°C)</b>			
<b>Property</b>	<b>Test Method</b>	<b>Units(s)</b>	<b>Test Results</b>
Hardness	ASTM D2240	Shore D	87 - 90
Flexural strength	ASTM D790	psi (MPa)	6,000 (41)
Tensile strength	ASTM D638	psi (MPa)	2,100 (14)
Compressive strength	ASTM D-695	psi (MPa)	6,200 (43)
Tg per TMA	ASTM E-1545	°F (°C)	128 (53)
Peak service temperature		°F (°C)	285 (141)

## 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.

## HANDLING PRECAUTIONS

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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.

## Packaging

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Packaging information on request, please contact your local sales representative or find your local contact on [www.sikaadvancedresins.us](http://www.sikaadvancedresins.us)

## CONTACT

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