

PRODUCT DATA SHEET

SikaBiresin® AP004 (Formerly APF-4)

Fast-Setting Polyester Filler

TYPICAL PHYSICAL PROPERTIES (FOR FURTHER VALUES SEE SAFETY DATA SHEET)

Properties	SikaBiresin® AP004 (A) Resin	Cream Hardener (B)
Composition	Polyester	Benzoyl peroxide
Mix ratio by weight	100	2
Aspect	Thixotropic paste	Liquid paste
Color	White, gray	White, black, red
Color (mixed)	Various	
Density at 77°F (25°C) (mixed)	13.6 (1.63) lbs./gal (g/cc)	
Pot life (100g) at 77°F (25°C)	4.0 – 7.0 Minutes	
Volumetric Weight	0.059 lbs/in ³ (1.63 g/cc)	

DESCRIPTION

SikaBiresin® AP004 is a fast-setting, premium-performance, polyester-based industrial filler paste. It is specifically formulated for filling, fairing, and repair applications and can be used in service temperatures up to 285°F (140°C). SikaBiresin® AP004 bonds to a wide variety of materials including wood, aluminum, cast iron, steel, copper, bronze, fiberglass (FRP and SMC), honeycomb paneling and urethane foam. Once cured, it forms a rigid, strong surface which can be machined, sanded, filed or scraped to a feathered edge. SikaBiresin® AP004 accepts virtually all types of coatings and decorative film without any blush or discoloration. In its mixed, uncured state, SikaBiresin® AP004 has a smooth, creamy consistency that enables the user to make quick repairs with minimal air entrapment.

PRODUCT BENEFITS

- Excellent adhesion
- Very fast setting
- Easy to use
- Minimal shrinkage
- Excellent finishing / machinability
- Can be used in service temperatures up to 285°F (140°C)

AREAS OF APPLICATION

SikaBiresin® AP004 is suitable for filling, fairing, and repair applications in a wide range of industries. Typical applications include filling surface porosity in composites panels and structures, along with FRP composite repair.

Tests with actual materials and conditions have to be performed to ensure satisfactory performance.



TYPICAL MECHANICAL AND THERMAL PROPERTIES

Properties, Test Method	SikaBiresin® AP004 (A) Resin	Cream Hardener (B)
Hardness, Shore D ASTM D2240	89	
Flexural strength, ASTM D790	6,000 psi (41 Mpa)	
Tensile strength, ASTM D638	2,100 psi (14 Mpa)	
Compressive Strength, ASTM D695	6,200 psi (43 Mpa)	
Tg per TMA, ASTM E-1545	128°F (53°C)	
Peak service temperature	285°F (140°C)	

Cure schedule: 7 days at 77°F (25°C)

PROCESSING

Surface Preparation and Application

To ensure optimal adhesion, the area to be filled or repaired should be thoroughly cleaned, sanded/roughened, re-cleaned, and allowed to dry prior to application.

Mixing Instructions

Stir contents of resin 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 cream hardener by weight. Set up time of mix at room temperature will be 10-20 minutes

Application

The mixed SikaBiresin® AP004 should be applied and worked into the area, taking caution to avoid air entrapment. After curing to a tack-free state, the material can be sanded and finished as needed.

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

- Ensure adequate ventilation
 - Wear gloves, glasses, and protective clothes
- For further information, please consult the Safety Data Sheets

STORAGE CONDITIONS

Product shelf life of SikaBiresin® AP004 (A) is 12 months when stored in original unopened containers between 65 – 77°F (15 – 25°C). Shelf life of Cream Hardener (B) is

18 months when stored in original unopened containers between 65 – 77°F (15 – 25°C).

Keep containers tightly closed. Polyester resin contains filler which has the potential to separate in time, please re-homogenize prior to use.

PACKAGING INFORMATION

Packaging information is available upon request. Please contact your local Sika sales representative.

FURTHER INFORMATION

Advice on specific applications will be given on request. To contact Sika Corporation's Industry Technical Services Department, send an email to tsmh@us.sika.com. Copies of Safety Data Sheets and Product Data Sheets are available upon request.

BASIS OF PRODUCT DATA

All technical data stated in this document are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

ENVIRONMENTAL, HEALTH AND SAFETY

For further information and advice regarding transportation, handling, storage and disposal of chemical products, user should refer to the actual Safety Data Sheets containing physical, environmental, toxicological and other safety related data. User must read the current actual Safety Data Sheets before using any products. In case of an emergency, call CHEMTREC at 1-800-424-9300, International

03-527-3887.

LEGAL DISCLAIMER

Prior to each use of any product of Sika Corporation, its subsidiaries or affiliates ("SIKA"), the user must always read and follow the warnings and instructions on the product's most current product label, Product Data Sheet and Safety Data Sheet which are available at usa.sika.com or by contacting SIKA's Technical Service Department via email at tsmh@us.sika.com. Nothing contained in any SIKA literature or materials relieves the user of the obligation to read and follow the warnings and instructions for each SIKA product as set forth in the current product label, Product Data Sheet and Safety Data Sheet prior to use of the SIKA product. SIKA warrants this product for one year from date of installation to be free from manufacturing defects and to meet the technical properties on the current Product Data Sheet if used as directed within the product's shelf life. User determines suitability of product for intended use and assumes all risks. User's and/or buyer's sole remedy shall be limited to the purchase price or replacement of this product exclusive of any labor costs. **NO OTHER WARRANTIES EXPRESS OR IMPLIED SHALL APPLY INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. SIKA SHALL NOT BE LIABLE UNDER ANY LEGAL THEORY FOR SPECIAL OR CONSEQUENTIAL DAMAGES. SIKA SHALL NOT BE RESPONSIBLE FOR THE USE OF THIS PRODUCT IN A MANNER TO INFRINGE ON ANY PATENT OR ANY OTHER INTELLECTUAL PROPERTY RIGHTS HELD BY OTHERS.** Sale of SIKA products are subject to the Terms and Conditions of Sale which are available at <https://usa.sika.com/en/group/SikaCorp/termsandconditions.html> or by calling +1 800-933-7452.

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