

PRODUCT DATA SHEET

SikaBiresin® AP551 (Formerly P-51)

Fiber-Filled Polyester Filler

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

Properties	SikaBiresin® AP551 (A) Resin	Cream Hardener (B)
Composition	Polyester	Benzoyl peroxide
Mix ratio by weight	100	2
Aspect	Thixotropic paste	Liquid paste
Color	Gray	White, black, red
Color (mixed)	Various	
Density at 77°F (25°C) (mixed)	11.52 lbs./gal (1.38 g/cc)	
Pot life (100g) at 77°F (25°C)	4.0 – 7.0 Minutes	
Finish schedule	15.0 – 20.0 Minutes	

DESCRIPTION

SikaBiresin® AP551 is a fiber-filled, fast setting, polyester-based, industrial filler paste. It is designed for use as a patch paste for bonding and filling various substrates. In its mixed, uncured state, SikaBiresin® AP551 has a smooth, creamy consistency that enables the user to make quick repairs with minimal air entrapment. The material can be applied in varying degrees of thickness with minimal shrinkage. Once cured, SikaBiresin® AP551 can be readily machined and accepts virtually all types of coatings and decorative films without any blush or discoloration.

PRODUCT BENEFITS

- Good adhesion to a wide range of substrates
- High impact resistance
- Very fast setting
- Minimal shrinkage
- Fiber-filled for increased strength
- Low moisture absorption

AREAS OF APPLICATION

SikaBiresin® AP551 is suitable for bonding and repair applications on FRP composites to FRP, metal inserts to fiberglass, metal to concrete, wood to wood, metal to metal, and detail blocks to FRP. It is also recommended for rebuilding broken areas, marine fabrications, and other applications that require a high strength bond and fill system.

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

TYPICAL MECHANICAL AND THERMAL PROPERTIES

Properties, Test Method	SikaBiresin® AP551 (A) Resin	Cream Hardener (B)
Hardness, Shore D ASTM D2240	83	
Flexural strength, ASTM D790	4,360 psi (41 Mpa)	
Flexural modulus, ASTM D790	216,100 (1,490 Mpa)	
Tensile strength, ASTM D638	2,419 psi (17 Mpa)	
Tensile modulus, ASTM D638	398,000 psi (2,744 Mpa)	
Compressive Strength, ASTM D695	3,505 psi (24 Mpa)	
Compressive Modulus, ASTM D695	63,000 psi (434 Mpa)	
Water absorption - 24 hr @ RT, ASTM D570	1.2 %	
Coefficient of Thermal Expansion (TMA), ASTM D696	29 (52) (ppm/°F (°C))	
Heat Deflection Temperature @ 66 psi, ASTM D648	130 (55) °F (°C)	
Heat Deflection Temperature @ 264 psi, ASTM D648	120 (49) °F (°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® AP551 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® AP551 (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

3-527-3887.

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.