

Industry



SikaFast[®] 3000 Series

Methyl Methacrylate Structural Elastic Adhesives



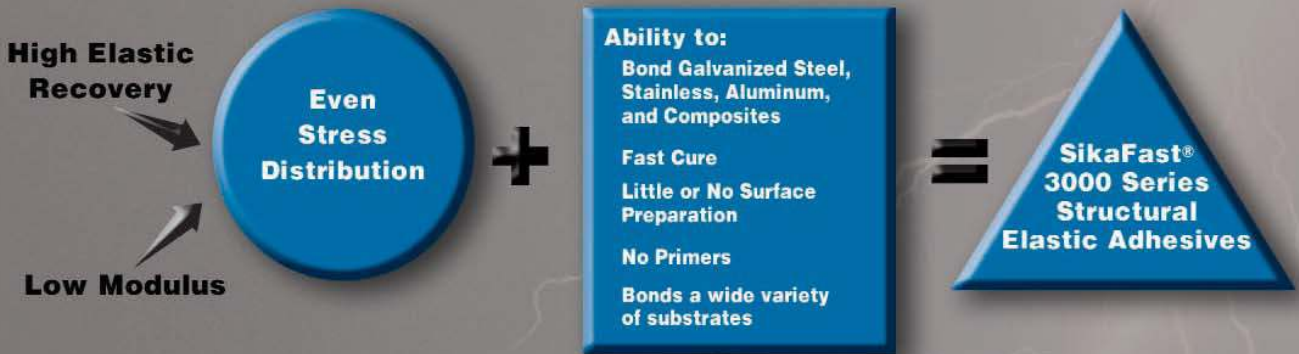
Sika[®]

SikaFast® 3000 Series Adhesives For Structural Bonding Applications

Sika Industry has developed a new, flexible, two-component acrylic adhesive designed to efficiently transfer high loads by evenly distributing stresses over bond lines. The development of SikaFast® technology has given industry a "new generation" of fast-curing, flexible adhesives that can be used in place of existing adhesive technologies, or as an alternative to welding, riveting, clinching and other mechanical fastening techniques. SikaFast® is an excellent and safe alternative to conventional mechanical fastening technologies.

SikaFast® bonds many materials without surface preparation or priming and cures rapidly at room temperature. These adhesives have the ability to join a wide variety of same or dissimilar substrates, and materials of different thicknesses. With high strength and excellent adhesion to a wide range of substrates, joints bonded with SikaFast® 3000 Series adhesives are capable of transmitting large mechanical forces. SikaFast® has the elastic recovery and thermal expansion advantages demanded by today's designs.

Characteristics that make SikaFast® 3000 Series Unique in the Market Place



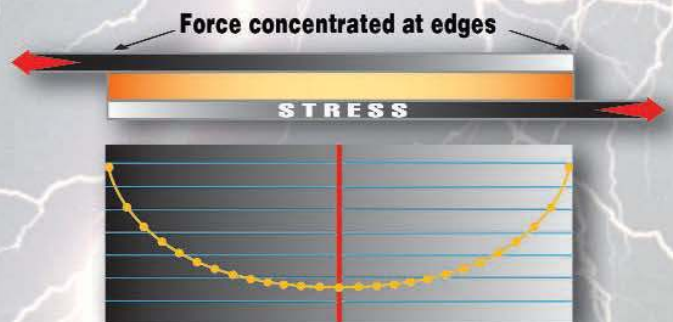
SikaFast® 3000 Series adhesives are formulated to distribute stresses more evenly over the bond line, thereby reducing edge stresses and using more of the bonded area. In many cases this results in higher load carrying capacity over the same joint size. These adhesives provide superior performance when bonding stress-sensitive materials such as fiberglass or painted/coated metals.

Most acrylic adhesives are rigid and do not distribute stress evenly, resulting in high stress concentrations at the bond line edges. Because of this there is little strength benefit by increasing the overlap.

SikaFast® develops excellent adhesion to a wide range of substrates with little or no surface preparation. The SikaFast® product family is offered with a broad range of open times and cure rates to meet the needs of most production environments. These properties allow manufacturers to maintain short cycle times for efficient and economical production.



Typical stress distribution using SikaFast



Stress distribution using a typical rigid adhesive

SikaFast® 3000 Series

SikaFast® Solves Bonding Challenges

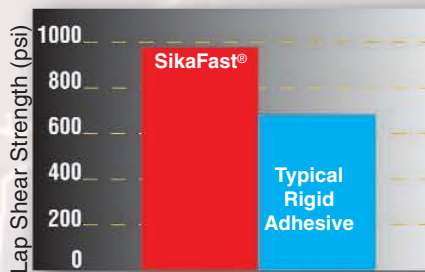
Metal-to-Metal - Even in the cleanest manufacturing environment, bonding metal-to-metal presents unique challenges such as oil, dirt, dust, and metal shavings. SikaFast® offers superb performance when bonding stainless, coated or painted metals, galvanized-to-galvanized, galvanized-to-aluminum, and aluminum-to-aluminum. Once again SikaFast® excels under these conditions **with little or no surface preparation required**, in most cases a quick dry wipe is all that is needed.

In addition, SikaFast® does not require surface primers, and surface preparation such as sanding or abrading is often not required. The result is substantial savings in manufacturing labor cost. By eliminating surface primers, the VOCs typically found in these products are also eliminated, resulting in a safer manufacturing environment and better air quality ratings.

Metal-to-Composites - Bonding dissimilar substrates with mechanical fasteners presents unique challenges in production. Extreme pressure is generated at points where the substrate and fastener meet creating stress points that are rigid and prone to fatigue and structural failure. With SikaFast®, eliminating mechanical fasteners becomes a reality. SikaFast® offers exceptional performance in these applications because of its low modulus over a broad range of temperatures. The end result is that SikaFast® will not fail in extreme cold and performs exceptionally well in hot temperatures. These adhesives are also resistant to corrosion ensuring impressive durability of the bond. Read-through is minimized when bonding composite materials, and bonding powder-coated metals is fast and efficient with SikaFast®.

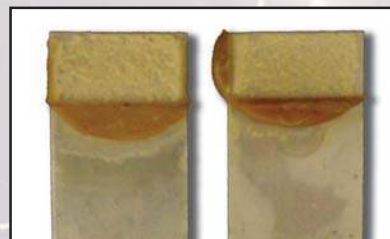
Another solution SikaFast® provides when bonding dissimilar substrates is elastic recovery of the joint. SikaFast® excels under these conditions by creating strong elastic bonds, allowing joint movement and even distribution of stress across the entire bond line.

Benefits of Efficient Stress Distribution



This chart demonstrates substantial gains in lap shear strength when bonding fiberglass with SikaFast® adhesives.

Neutral Salt Spray Test



Lap shear test samples using SikaFast® on 5052 aluminum. Test was conducted to the ASTM B117 standard for 1000 hours. Bond retained full integrity with no sign of salt corrosion or loss of strength.

	SikaFast® 3121	SikaFast® 3131	SikaFast® 3131S	SikaFast® 3141
Adhesive Color (Part A) Activator Color (Part B)	Charcoal Gray Natural & Black	Off-White Natural & Black	Off-White Natural & Black	Off-White Natural & Black
Mixing/Dispensing Color w/Natural Part B Mixing/Dispensing Color w/Black Part B	Light Gray Black	Natural/Straw Black	Natural/Straw Black	Natural/Straw Black
Cure Color w/Natural Part B Cure Color w/Black Part B	Dark Green Black	Tan Black	Tan Black	Tan Black
Open Time @ 72 F Peak Exotherm Time (Typical) Fixture Time (Typical)	5 Minutes 10 Minutes 13 Minutes	7 Minutes 17 Minutes 30 Minutes	7 Minutes 17 Minutes 30 Minutes	20 Minutes 30 Minutes 45 Minutes
Lap Shear @ 72 F (ASTM D1002) Galvanized - (Typical Value) Aluminum - (Typical Value) FRP-to-FRP* (*depends on fiber orientation of FRP)	>1,300psi cohesive failure >1400psi cohesive failure FRP Failure*	>1,300psi cohesive failure >1400psi cohesive failure FRP Failure*	>1,300psi cohesive failure >1400psi cohesive failure FRP Failure*	>1,200psi cohesive failure >1200psi cohesive failure FRP Failure*
Shelf Life	Six months in original packaging when stored under cool, dry conditions. Refer to Technical Data Sheet for specific information on each product.			
Packaging	490ml Cartridge 4.5 gal. Pail 45 gal. drum	490ml Cartridge 4.5 gal. Pail 45 gal. drum	490ml Cartridge 4.5 gal. Pail 45 gal. drum	490ml Cartridge 4.5 gal. Pail
Bulk Dispensing	All SikaFast® 3000 Series products are used on a 10:1 basis. When using bulk materials in pails and drums this requires one 45 gal drum of adhesive material (Part A) to one 4.5 gal pail of activator (Part B) material. SikaFast® products are compatible with most leading bulk dispensing systems. All dispensing applications should be reviewed with Sika application engineers.			

SikaFast® 3000 Series

Typical Applications for SikaFast® 3000 Series Adhesives:

<i>Application:</i>	<i>Benefit:</i>
 <p>Truck/Trailer -Bonding Sidewalls, Roofs, Floors</p>	<p>-Reduce or eliminate welds, rivet, clinching -Reduce manufacturing cost -Improves manufacturing cycle times</p>
 <p>Recreational Vehicles</p>	<p>-Speeds up assembly times -Simplify finishing process -Enhance aesthetics</p>
 <p>Bus and Rail</p>	<p>-Eliminates mechanical fasteners -Improves aesthetics -Design options</p>
 <p>Trailer Manufacturing</p>	<p>-Speeds up assembly cycle times -Simplify finishing process -Bonding structural/stiffening elements</p>
 <p>Utility Truck Bodies</p>	<p>-Eliminates mechanical fasteners -Improves aesthetics</p>
 <p>HVAC</p>	<p>-Eliminates welds -Bonds & seals in same process -Bonding structural/stiffening elements</p>
 <p>Appliances and Electronics</p>	<p>-Speeds up assembly times -Simplify finishing process -Bonding structural/stiffening elements</p>
 <p>Window/Fenestration</p>	<p>-Bonds & reinforces in same process -Improves manufacturing cycle times</p>
 <p>Signage</p>	<p>-Bonding structural/stiffening elements -Joining and sealing in a single operation</p>

North American Plant Locations

Quebec, Canada
Lyndhurst, New Jersey
Marion, Ohio
Grandview, Missouri

Sika Industry

30800 Stephenson Highway
Madison Heights, MI 48071
(248) 577-0020

Visit us on the World Wide Web at:

www.sikaindustry.com

Customer Service Transportation OEM

(800) 688-7452

Industrial

(800) 548-0496

Technical Service

(888) 832-7452

SIKA warrants its products for one year from date of installation to be free from manufacturing defects and to meet the technical requirements specified on the current Technical Data Sheet if used as directed within shelf life. User determines suitability of product for intended use and assumes all risks. Buyer's sole remedy shall be limited to the purchase price or replacement of product exclusive of labor or cost of removal. SIKA MAKES NO 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. 10/03



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