

# Sika® Sealants and Adhesives Technical Product Data

This chart is meant for quick reference ONLY.

Refer to current Sika® Product Data Sheet for the most up to date information. Available on the Sika® web site at [www.sikaindustry.com](http://www.sikaindustry.com)

Key Properties	Sikaflex®-221	Sikaflex®-227	Sikaflex®-255FC	Sikaflex®-265	Sikaflex®-529	SikaFast®
VOCs	0.40 lb/gal	0.41 lb/gal	0.535 lb/gal	0.53 lb/gal		0.45 lb/gal
Density	10.3 lb /gal	11.7 lb/gal	10.1 lb/gal	10.1 lb/gal	10.7 lb/gal	Mixed 8.7 lb/gal
Tack-Free Time @ 73F/50%RH	60 minutes	30 minutes	30 minutes	45 minutes	15 minutes	5-7 minutes
Shore A Hardness	45 - 50	30	52-57	46	45	65
Tensile Strength ASTM D-412	260 psi	245 psi	580 psi	870 psi	145 psi	1300 psi
Lap Shear Strength ASTM D-1002	165 psi	160 psi	500-600 psi	650 psi		1300-1700 psi
Elongation at Break	500%	600%	400%	450%	120%	80%
Joint Movement Capability	+/- 12.5%	+/- 12.5%	NA	NA	NA	N/A
Solvent Content	<4%	3-4%	<5%	<5%		
Application Temperature	40 - 105°F	40 - 110°F	50 - 95°F	50 - 95°F	60 - 95°F	50 - 95°F
Service Temperature	-40 - 190°F	-40 - 195°F	-40 - 194°F	-40°F-194°F	-40°F-194°F	-20°F-180°F
Cut off	Fair	Fair	Good	Good	Good	Excellent
Non-Sag	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good

**Sika Corporation**  
30800 Stephenson Highway  
Madison Heights, MI 48071

Tel: 248.577.0020

**Customer Service**  
800.548.0496

**Technical Service**  
email: [tsmh@sika-corp.com](mailto:tsmh@sika-corp.com)

[www.sikaindustry.com](http://www.sikaindustry.com)

**Sika North America  
Plant Locations**  
Lyndhurst, New Jersey  
Marion, Ohio  
Grandview, Missouri  
Quebec, Canada



Product 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 labor. 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.



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## Bonding, Sealing & Protecting

### Sika® High Performance Adhesives & Sealants For Military Vehicles

# Sika® High Performance Sealants and Adhesives

## High-Tech, High Bond

When the military specifies a product; strength, tenacity and durability are high on the list of requirements. For military vehicles performance and strength are essential prerequisites for tactical vehicles to ensure maximum protection surrounds all personnel during the most demanding operations.

Strength, elasticity and durability are key words in the production and repair of military tactical vehicles, which are constantly exposed to the harshest combat conditions. The elastic adhesive and sealing systems specifically designed by Sika for the military industry offer outstanding performance where it is needed, making them ideal for use in all military vehicles - from personnel transports to heavy armored vehicles.

Sika's line of adhesives and sealants covers all your ballistic glass bonding, armor structural assembly, compartment lining, interior and exterior sealing and weapons transport container building needs.

The following are the general Sika products and applications offered to the military vehicle industry. *Due to confidentiality agreements, other Sika products and applications are not published in this literature. Sika would look forward to the opportunity to speak with you regarding your application specification and needs.*

## Ballistic Glass Bonding



For over 20 years Sika has been a leader in providing transportation OEM assembly lines with innovative glass bonding solutions. Sika also has taken this experience to expand to structural, impact and ballistic glass bonding.

**Sikaflex®-265** is used for direct glazing and backfill of multilayer ballistic glass up to 8 cm thick and 150 Kg applications.

Sikaflex®-265 is a low VOC, high elastic, one component polyurethane, fast curing adhesive suitable for structural joints that will be subjected to dynamic stresses. Sikaflex®-265 offers low moisture vapor transmission to protect sensitive layers of the ballistic glass unit.



## Body Armor Assembly

For assembly of multilayer metal and Kevlar sacrificial armor plates - **Sikaflex®-255 FC**

Sikaflex®-255 FC is a fast curing, flexible, high-performance one-component, polyurethane based adhesive for bonding panels and other structures to a variety of substrates. Sikaflex®-255 FC offers extremely high initial bond strength **with elastic properties for high energy absorption**. Its fast rate of cure results in rapid strength development and shorter service times.

## Body Sealing

Sika offers two sealants for body assembly seam sealing to support cabin pressurization to chemical infiltration;

**Sikaflex®- 221 and Sikaflex®-227.**

**Sikaflex®-221** is a high-quality multi purpose non-sag 1-c polyurethane sealant that cures on exposure to atmospheric humidity to form a durable elastomer. Sikaflex®-221 elasticity allows high movement and durability that bonds well to a wide variety of substrates and is suitable for making permanent elastic seals of high adhesive strength. Sikaflex®-221 offers high chemical resistance and is available in Desert Tan to color match the body.

**Sikaflex®-227** is a 1-component, fast-curing, fast-skinning polyurethane based, elastomeric adhesive/sealant that offers tenacious adhesion to a variety of substrates without primers and attacking the metal coating. Sikaflex®-227 exhibits high recovery (> 90%), making it ideal for sealing dynamically moving joints. Sikaflex®-227 offers high chemical resistance and is available in Desert Tan for body color matching.

## Compartment Lining

**Sikaflex®-529** is a multifunctional 1-component, low VOC, ms polymer, isocyanate free hybrid sealant suitable for automated or manual dispensing either in a spray form or bead. Sikaflex®-529's uniform and high build spray application creates a protective lining of storage compartments to seal and reduce noise and impact damage to cargo. Sikaflex®-529 can be also is available for general seam sealing applications is immediately paintable.

## Weapons Transport Containers

For assembly of metal and composite weapons transport containers; **SikaFast®** a flexible, fast curing, two component acrylic structural adhesives designed to efficiently transfer high loads and evenly distribute stresses. SikaFast® structural adhesives designed to substitute or complement welding, riveting, clinching and other mechanical fastening techniques used in the manufacturing. SikaFast® bonds to many materials without surface preparation or priming and cures rapidly at room temperature. SikaFast can be use for fast field repairs for in place of welding.



## A Global Solutions Provider

Sika® organization consists of locally based operations in 70 countries on 5 continents with more than 10,000 professionals, six research and development centers of excellence located across the globe, and extensive technical service and customer service organizations.

Sika® supplies a full range of premier adhesives and sealants that meet the high performance demands of our customers. Sika strives to meet the standards of innovation that our customers have come to expect from our products for both assembly operations and field installation applications.

Sika provides a systematic approach to determining the best bonding and sealing solution. Because the requirements for adhesives are as diversified as the specification for the construction element, Sika® works with our customers from designing proper adhesive and sealant joints, product selection to ensuring the technology meets the required specifications and are correctly installed in the application process