

## PRODUCT DATA SHEET

Sikaflex<sup>®</sup>-220+

## WINDSHIELD ADHESIVE

## TYPICAL PRODUCT DATA (FURTHER VALUES SEE SAFETY DATA SHEET)

Chemical base	1 component polyurethane	
Color (CQP001-1)	Black	
Cure mechanism	Moisture-curing	
Density (uncured)	1.2 kg/l	
Non-sag properties	Excellent	
Application temperature	Product	5 – 43 °C (40 – 110 °F)
	Ambient	5 – 43 °C (40 – 110 °F)
	Substrate	5 – 54 °C (40 – 130 °F)
Skin time (CQP019-1)	40 minutes <sup>A</sup>	
Open time (CQP526-1)	30 minutes <sup>A</sup>	
Shore A hardness (CQP023-1 / ISO 7619-1)	50	
Tensile strength (CQP036-1 / ISO 527)	7 MPa (1 000 psi)	
Elongation at break (CQP036-1 / ISO 527)	400 %	
Tear propagation resistance (CQP045-1 / ISO 34)	11 N/mm (63 pli)	
Tensile lap-shear strength (CQP046-1 / ISO 4587)	5 MPa (725 psi)	
Safe Drive Away Time (cars) according FMVSS 212 (CQP511-1)	See Table 1	
Service Temperature (CQP509-1 / CQP513-1)	-40 – 93 °C (-40 – 200 °F)	
Shelf life (CQP016-1)	9 months <sup>B</sup>	

CQP = Corporate Quality Procedure

<sup>A</sup> 23 °C (73 °F) / 50 % r.h.<sup>B</sup> Stored below 25 °C (77 °F)

## DESCRIPTION

Sikaflex<sup>®</sup>-220+ is a one component, cold-applied, high viscosity polyurethane adhesive designed for use in replacing direct glazed automotive glass parts. When used as directed, Sikaflex<sup>®</sup>-220+ meets or exceeds the strength requirements outlined in the direct glazing specifications of automobile manufacturers.

## PRODUCT BENEFITS

- Cost effective
- One step pre-treatment for glass
- Short cut-off string
- Easy to apply

## AREAS OF APPLICATION

Sikaflex<sup>®</sup>-220+ has been specifically designed for the Automotive Glass Replacement business. It is ideal for mobile and in-shop installations.

This product is to be used by professional, experienced users only. Related process information in this PDS is specifically for Automotive Glass Replacement. For other applications, tests with actual substrates and conditions have to be performed to ensure adhesion and material compatibility.

Prior to each use of any Sika product, the user must always read and follow the warnings and instructions on the product's most current Product Data Sheet, label and Safety Data Sheet which are available at <http://usa.sika.com/> or on request at [tsmh@us.sika.com](mailto:tsmh@us.sika.com). Nothing contained in any Sika 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 Data Sheet, label and Safety Data Sheet prior to product use.

## PRODUCT DATA SHEET

Sikaflex<sup>®</sup>-220+

Version 02.01 (02 - 2019), en\_US

012001212200001000

## CURE MECHANISM

Sikaflex®-220+ cures by reaction with atmospheric moisture. At low temperatures the water content of the air is generally lower and the reaction proceeds more slowly. More information can be found in the Safe Drive Away Time table that follows.

Rel. Hum.	Temperature (°F)			
	> 40	> 50	> 72	95 - 110
> 90%	16	12	8	8
> 70%	16	12	8	8
> 40%	NR	16	8	8
> 20%	NR	NR	16	8
> 0%	NR	NR	NR	NR

Table 1: Safe Drive Away Time (hours)

## CHEMICAL RESISTANCE

Sikaflex®-220+ is generally resistant to fresh water, seawater, diluted acids and diluted caustic solutions; temporarily resistant to fuels, mineral oils, vegetable and animal fats and oils; not resistant to organic acids, glycolic alcohol, concentrated mineral acids and caustic solutions or solvents.

## METHOD OF APPLICATION

### Surface Preparation

Surfaces must be clean, sound, dry and free from all traces of traditional and non-traditional contamination. All corrosion must be removed and all bare metal scrapes and scratches must be prepared in accordance with Sika's Corrosion Treatment recommendations. For preparation of all bonding surfaces it is required to read and understand the instructions given in the Sika AGR Technician Training Manual.

## Application

Cut off the tip of the nozzle in accordance with the vehicle manufacturer's recommendations and screw onto the cartridge or the unipack adapter.

It is recommended to apply the adhesive with a piston-type application gun. To ensure a uniform thickness of adhesive bead, we recommend that the adhesive be applied in the form of a triangular bead (see fig. 1).

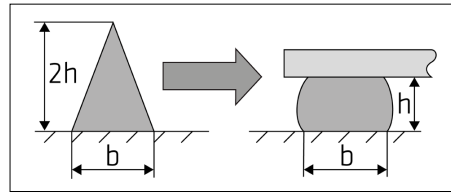


Figure 1: Compressing adhesive bead to final size

## Removal

Uncured Sikaflex®-220+ can be removed from tools and equipment with mineral spirits or another suitable solvent. Once cured, the material can only be removed mechanically. Hands and exposed skin should be washed immediately using a suitable industrial hand cleaner and water. Strictly follow solvent manufacturer's instructions for use and warnings. Do not use solvents on skin!

## Application Limits

- Avoid contact with alcohol and alcohol containing solvents during cure.
- Do not apply over silicones or in the presence of curing silicones.
- Glass parts must always be installed within the open time. The open time is significantly shorter in hot and humid climates. Never install any glass part after the product has built a skin.
- Always use in conjunction with Sika® Aktivator PRO or Sika® Primer-207.

## FURTHER INFORMATION

Please contact your local Sika Technical Services Department to request advice on specific applications. Copies of the following publications are available on our website [www.sikaindustry.com](http://www.sikaindustry.com):

- Safety Data Sheets
- Product Data Sheets
- Sika AGR Technician Training Manual

## PACKAGING INFORMATION

Cartridge	300 ml
Unipack	600 ml

## 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.

## HEALTH AND SAFETY INFORMATION

For information and advice regarding transportation, handling, storage and disposal of chemical products, users shall refer to the actual Safety Data Sheets containing physical, ecological, toxicological and other safety-related data.

## LIMITED PRODUCT WARRANTY

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 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.**

Prior to each use of any Sika product, the user must always read and follow the warnings and instructions on the product's most current Product Data Sheet, label and Safety Data Sheet which are available at <http://usa.sika.com/> or on request at [tsmh@us.sika.com](mailto:tsmh@us.sika.com). Nothing contained in any Sika 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 Data Sheet, label and Safety Data Sheet prior to product use.

PRODUCT DATA SHEET  
Sikaflex®-220+  
Version 02.01 (02 - 2019), en\_US  
012001212200001000

Sika Corporation  
30800 Stephenson Highway  
Madison Heights, MI 48071  
U.S.A.  
Telephone: +1 248-577-0020  
Email: [tsmh@us.sika.com](mailto:tsmh@us.sika.com)  
[www.sikausa.com](http://www.sikausa.com)

