



## PRODUCT DATA SHEET

# Sikaflex®-220+

## Windshield Adhesive

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

Chemical base	1 component polyurethane	
Colour (CQP001-1)	Black	
Cure mechanism	Moisture-curing	
Density (uncured)	1.2 kg/L	
Non-sag properties	Excellent	
Application temperature Product	5 °C – 43 °C	
Ambient	5 °C – 43 °C	
Substrate	5 °C – 54 °C	
Skin time (CQP019-1)	40 minutes <sup>A</sup>	
Open time (CQP526-1)	30 minutes <sup>A</sup>	
Shore A hardness (CQP023-1 / ISO 48-4)	50	
Tensile strength (CQP036-1 / ISO 527)	7 MPa	
Elongation at break (CQP036-1 / ISO 527)	400 %	
Tear propagation resistance (CQP045-1 / ISO 34)	11 N/mm	
Tensile lap-shear strength (CQP046-1 / ISO 4587)	5 MPa	
Minimum Drive Away Time (cars) according FMVSS 212 (CQP511-1)	See Table 1	
Service Temperature (CQP509-1 / CQP513-1)	-40 °C – 93 °C	
Shelf life	9 months <sup>B</sup>	

CQP = Corporate Quality Procedure

A) 23 °C / 50 % r.h.

# **DESCRIPTION**

Sikaflex®-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®-220+ is an appropriate adhesive for use in auto glass replacement applications.

## **PRODUCT BENEFITS**

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

B) Stored below 25 °C

# AREAS OF APPLICATION

Sikaflex®-220+ has been specifically designed for the Automotive Glass Replacement (AGR) 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.

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Sikaflex®-220+

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#### **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 Minimum Drive Away Time table that follows.

R e I . 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: Minimum 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. Windshields without ceramic coating need proper UV protection.

## 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).

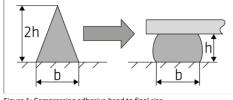


Figure 1: Compressing adhesive bead to final size

#### Removal

Uncured Sikaflex®-220+ may be removed from tools and equipment with Sika® Remover-208 or another suitable solvent. Once cured, the material can only be removed mechanically.

#### **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, Sika\* Primer-207, or Sika\* Primer-207 AGR.

## **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:

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

#### PACKAGING INFORMATION

Cartridge	300 mL
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#### 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**

User must read the most recent corresponding Safety Data Sheets (SDS) before using any products. The SDS provides information and advice on the safe handling, storage and disposal of chemical products and contains physical, ecological, toxicological and other safety-related data.

#### DISCLAIMER

The information, and in particular, the recommendations relating to the application and enduse of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any recommendations, or from any other advice offered. The information contained herein does not relieve the user of the products from testing them for the intended application and purpose. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request or may be downloaded from our website at: www.sika.ca

