



Sikaflex[®]-220+

Fast Curing Auto Glass Replacement Direct Glazing Adhesive

Technical Product Data

Chemical base	1-C polyurethane
Colour	Black
Cure mechanism	Moisture-curing
Density (uncured)	1.2 kg/L
Non-sag properties	Excellent
Application temperature	4°C to 43°C
Tack free time ¹	30 minutes
Open time ¹	15 minutes
Shore A-hardness	50 to 55
Tensile strength	6.9 to 8.3 N/mm ²
Elongation at break	500% to 600%
Safe Drive-Away Time ¹ (cars) according to FMVSS 212 / 208	(see chart 1)
Service temperature range	-40°C to 93°C
Shelf life (storage below 25°C)	Cartridge 9 months

¹⁾ at 23°C and 50% r.h.

Description

Sikaflex[®]-220+ is a one component cold-applied, fast-curing, high-viscosity polyurethane adhesive designed for use in replacing direct glazed automotive glass parts. Engineered to perform to the strength of OEM requirements, Sikaflex[®]-220+ exceeds all federal requirements even in the most severe interpretations for FMVSS 212 / 208.

Sikaflex[®]-220+ is manufactured in accordance with ISO 9001 / 14001 quality assurance system. Additional information can be obtained at www.sika.ca or by contacting the technical service department of Sika Canada.

Product Benefits

- One-component formulation
- Fast curing speed
- High mechanical performance
- Black primerless to glass
- Short cut-off string
- Safe Drive Away Time in as little as two hours when used on vehicles without a passenger side airbag, eight hours with passenger airbag
- Exceeds FMVSS 208/212 in its most severe interpretation with dual airbags and unrestrained dummies
- Cost effective

Areas of Application

Sikaflex[®]-220+ is designed for use in replacing polyurethane direct-glazed automotive glass parts.

This product is suitable for professional experienced users only. Test with actual substrates and conditions have to be performed to ensure adhesion and material compatibility.

Industry



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 extending Safe Drive Away Time.

Method of Application Safe Drive Away Time

Rel. Hum.	Temperature (°C)					
	>-9.4	>-3.9	>4.4	>10	>22.2	>35
Without Airbags (minutes)						
>90%	24h	24h	4h	3h	2h	2h
>70%	24h	24h	4h	3h	2h	2h
>40%	NR	24h	24h	4h	2h	2h
>10%	NR	NR	24h	24h	4h	2h
>0%	NR	NR	NR	NR	4h	4h
With Passenger Airbags (minutes)						
>90%	NR	NR	16h	12h	8h	8h
>70%	NR	NR	16h	12h	8h	8h
>40%	NR	NR	NR	16h	8h	8h
>10%	NR	NR	NR	NR	16h	8h
>0%	NR	NR	NR	NR	NR	NR

Chart 1: Safe Drive Away Table for Sikaflex®-220+

Surface preparation

Surfaces must be clean, sound, dry and free from all traces of dust and grease. All corrosion must be removed and all bare metal scrapes and scratches must be prepared in accordance with Sika's Corrosion Treatment recommendations. Prepare bond area of glass with Sika® Aktivator PRO. THIS PRODUCT MUST BE USED WITH SIKAFLEX® AKTIVATOR PRO TO LIMIT DISPLACEMENT OF GLASS IN THE EVENT OF A CRASH. IF NOT USED AS DIRECTED, PRODUCT MAY NOT PERFORM AS INTENDED AND PERSONAL INJURY OR DAMAGE MAY RESULT FROM FAILURE OF PRODUCT TO PROPERLY ADHERE TO GLASS. For preparation of all bonding surfaces it is required to read and understand the instructions given in the Sika AGR Technician Training Manual.

Application

Puncture seal, attach appropriately cut nozzle (e.g. "V" notch) and apply adhesive.

For complete instructions, refer to the Sika AGR Technician Training Manual. THIS IS TO BE USED BY TRAINED INSTALLERS ONLY. DO NOT USE WITHOUT REVIEW OF ALL SIKAFLEX® INSTALLATION GUIDELINES, PRODUCT DATA SHEET AND MSDS.

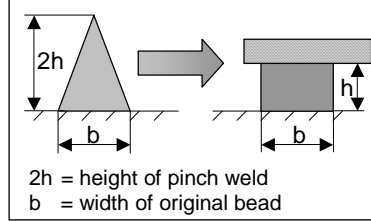


Figure 1: Recommended bead configuration

Tooling and Finishing

Tooling and finishing must be carried out within the tack free time of the adhesive. We recommend the use of Sika® Tooling Agent N. Other finishing agents or lubricants must be tested for suitability/compatibility.

Clean up

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!

Further Information

Copies of the following publications are available on request:

- Sika Primer Chart.
- Material Safety Data Sheet.

Value Basis

All technical data stated in this Product Data Sheet and laboratory test based. Current measured values may vary due to factors beyond our control.

Health and Safety Information

For information and advice on the safe handling, storage and disposal of chemical products, users should refer to the current Material Safety Data Sheet containing physical, ecological, toxicological and other safety-related data.

All Product Data Sheets and Material Safety Data Sheets are also available on our web site.

Legal Notes

The information, and in particular, the recommendations relating to the application and end-use 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, within their shelf life. 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 proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users should always refer to the most recent issue of the Product Data Sheet for the product concerned, copies of which will be supplied on request or can be accessed in the Internet.

Further information available at:
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