Product Data Sheet
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SikaHyflex®-305 AP

Waterproofing Silicone Sealant

Construction

Product Description	SikaHyflex®-305 AP is a neutral-curing silicone sealant with a high movement capability and excellent adhesion to a wide range of substrates.
Uses	■ Aluminium ■ Composite materials ■ Panels(ACP) ■ Glass ■ Metals ■ Coated and painted metals ■ Plastics ■ Wood
Characteristics / Advantages	■ Excellent adhesion ■ High movement capability ■ Weather resistant ■ Outstanding UV resistance ■ High strength ■ Interior & Exterior ■ Permanent flexibility

Product Data

Colours	Black, Grey
Packaging	300ml Cartridge, 25 cartridges per box 600ml sausage black, 20 sausages per box

Storage

Shelf Life (Storage below 25°C)	12 months

Technical Data

Chemical Base	1-C silicone
Density (uncured)	Transparent 1.03 kg/l approx. All other colors 1.09kg/l approx.
Skin Time[2]	Transparent 40 min approx. All other colors 15 min approx.
Tack-free time[2]	180 min approx.

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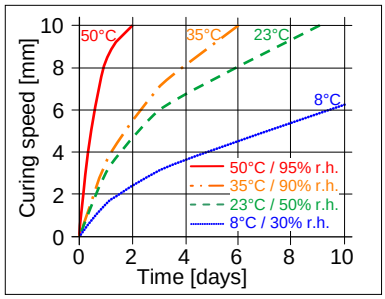
Construction

Curing Speed	
Cure Mechanism	SikaHyflex®-305 AP cures by reaction with atmospheric moisture. The reaction thus starts at the surface and proceeds to the core of the joint. The curing speed depends on the relative humidity and the temperature (see diagram 1 below). Heating above 50°C to speed-up the vulcanization is not advisable as it may lead to bubble formation. At low temperatures the water content of the air is lower and the curing reaction proceeds more slowly.
Application temperature	5 - 40°C
Tear propagation resistance	4 N/mm approx
100% modulus	0.4 N/mm^2 approx.
Movement accommodation capability	± 50%
Thermal resistance Short term	180°C approx. 4 hours 200°C approx. 1 hour 220°C approx.
Service temperature	-40 - 150°C approx.
Mechanical/Physical Properties	
Tensile strength	1.0 N/mm^2 approx.
Shore a Hardness	25 approx.
Elongation at break	900% approx.

System Information

Application Details

Substrate Preparation/Application/

Surface preparation
Surfaces must be clean, dry and free from oil, grease and dust.
Advice on specific applications and surface pretreatment methods is available from the Technical Service Department.
Application
After suitable joint and substrate preparation, SikaHyflex®-305 AP is gunned into place. Joints must be properly dimensioned as changes are no longer possible after construction. For optimum performance the joint width should be designed according to the movement capability of the sealant based on the actual expected movement. The minimum joint depth is 6 mm and a width / depth ratio of 2:1 must be respected. For backfilling it is recommended to use closed cell, sealant compatible foam backer rods e.g. high resilience polyethylene foam rod. If joints are too shallow for backing material to be employed, we recommend using a polyethylene tape. This acts as a release film (bond breaker), allowing the joint to move and the silicone to stretch freely.
For more information please contact our Technical Department.

Tooling and finishing
Tooling and finishing must be carried out within the skin time of the adhesive.
When tooling freshly applied SikaHyflex®-305 AP press the adhesive to the joint flanks to get a good wetting of the bonding surface.

Clean Up	Uncured SikaHyflex®-305 AP may be removed from tools and equipment with Sika® Remover-208 or another suitable solvent. Once cured, the material can only be removed mechanically. Hands and exposed skin should be washed immediately using Sika®Handclean Towel or a suitable industrial hand cleaner and water. Do not use solvents.

Application Conditions/ Limitations

Restrictions on Use	Most Sikasil® WS, FS, SG, IG, WT, AS and other engineering silicone sealants manufactured by Sika are compatible with each other.Sikasil® WS and FS sealants are compatible with SikaGlaze IG sealants. All other sealants have to be approved by Sika before using them in combination with SikaHyflex®-305 AP. Where two or more different reactive sealants are used, allow the first to cure completely before applying the next. Do not use SikaHyflex®-305 AP on pre-stressed polyacrylate and polycarbonate elements as it may cause environmental stress cracking (crazing). The compatibility of gaskets, backer rods and other accessory materials with SikaHyflex®-305 AP must be tested in advance. Joints deeper than 15 mm should be avoided. The above information is offered for general guidance only. Advice on specific applications will be given on request.

Value Base

All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

Health and Safety Information

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

Important Notification

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. 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 written 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 and conditions of sale. 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. PLEASE CONSULT OUR TECHNICAL DEPARTMENT FOR FURTHER INFORMATION.