

PRODUCT DATA SHEET

Sikasil®-712 WS

LOW-MODULUS WEATHER SEALANT FOR CURTAIN WALL AND METAL CLADDING FACADE

DESCRIPTION

Sikasil®-712 WS is a silicone-based, 1-component, UV-stable, moisture curing, low-modulus elastic weather sealant. Suitable for use in hot and tropical climatic conditions.

USES

Sikasil®-712 WS is designed for weather proofing and sealing applications where the sealants appearance is of importance (translucent/metallic look).

Sikasil®-712 WS is particularly suited as a sealant for shop front, glass partition walls and other applications.

CHARACTERISTICS / ADVANTAGES

- Very good weathering resistance
- Movement capability of $\pm 25\%$ (ASTM C 719)
- Very good workability
- Translucent, metallic look
- Neutral cure
- Low VOC content

ENVIRONMENTAL INFORMATION

Certified according "Low Emitting Materials as per Al Sa'fat - Dubai Green Building Evaluation System" by Dubai Central Laboratory (DCL) certificate No: CL18020539

APPROVALS / STANDARDS

- ASTM C 920, class 25
- VOC test report (US EPA 24)
- VOC Emission Test Report (CDPH)

PRODUCT INFORMATION

Chemical Base	Neutral cure silicone	
Packaging	300 ml cartridge, 12 cartridges per box 600 ml foil pack, 20 foil packs per box	
Colour	Translucent and aluminium	
Shelf Life	Cartridge - 12 months Unipack (foil pack) - 12 months	
Storage Conditions	Sikasil®-712 WS shall be stored in dry conditions, where it is protected from direct sunlight and at temperatures between + 5°C and + 25°C.	
Density	~0.98 kg/l	
Volatile organic compound (VOC) content	≤ 50	(US EPA 24)

TECHNICAL INFORMATION

Shore A Hardness	~24 (after 28 days)	(CQP023-1 / ISO 7619-1)										
Tensile Strength	~0.4 MPa	(CQP036-1 / ISO 527)										
Movement Capability	±25 %	(ASTM C 719)										
Service Temperature	-40°C to +150°C											
Joint Design	<p>The joint width must be designed to suit the joint movement required and the movement capability of the sealant. The joint width shall be ≥ 6 mm and ≤ 45 mm. The joint depth shall be ≥ 6 mm and ≤ 15 mm. A width to depth ratio of 2:1 must be maintained (for exceptions, see table below).</p> <p>Typical joint dimensions</p> <table><tr><th>Joint Width [mm]</th><th>Joint Depth [mm]</th></tr><tr><td>10</td><td>6</td></tr><tr><td>15</td><td>8</td></tr><tr><td>20</td><td>10</td></tr><tr><td>30</td><td>15</td></tr></table> <p>All joints must be correctly designed and dimensioned in accordance with the relevant standards, before their construction. The basis for calculation of the necessary joint widths are the type of structure and its dimensions, the technical values of the adjacent building materials and the joint sealing material, as well as the specific exposure of the building and the joints. For larger joints please contact Sika technical service.</p>		Joint Width [mm]	Joint Depth [mm]	10	6	15	8	20	10	30	15
Joint Width [mm]	Joint Depth [mm]											
10	6											
15	8											
20	10											
30	15											
Elongation at break	~450 %	(CQP036-1 / ISO 527)										

APPLICATION INFORMATION

Consumption	Joint length [m] per 600 ml foil pack	Joint width [mm]	Joint depth [mm]
	10	10	10
	5	15	8
	3	20	10
	2	25	12
	1.3	30	15
Backing Material	Use closed cell, polyethylene foam backing rods.		
Ambient Air Temperature	+5°C to +40°C, min. 3°C above dew point temperature		
Substrate Temperature	+5°C to +40°C		
Curing Rate	~2 mm/24 hours (23°C / 50% r.h.)		(CQP 049-2)
Skin Time	~15 minutes (23°C / 50% r.h.)		(CQP 019-1)
Tack Free Time	~70 minutes (23°C / 50% r.h.)		(CQP 019-3)

BASIS OF PRODUCT DATA

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.

FURTHER DOCUMENTS

- Safety Data Sheet (SDS)
- Pre-treatment Chart Sealing & Bonding
- General Guidelines Sikasil Weather Sealants

LIMITATIONS

- Sikasil®-712 WS cannot be overpainted. Colour variations may occur due to exposure to chemicals or other extreme external influences. However, a change in colour is purely of aesthetic nature and does not adversely influence the technical performance or durability of the product.
- Do not use Sikasil®-712 WS on natural stone.
- Do not use Sikasil®-712 WS on bituminous substrates, natural rubber or any building materials which might bleed oils, plasticizers or solvents that could attack the sealant. EPDM or other gaskets in direct contact with Sikasil®-712 WS have to be tested for compatibility prior to application. For specific advice contact Sika technical service.
- Do not use Sikasil®-712 WS on pre-stressed polyacrylate and polycarbonate as it may cause environmental stress cracking (crazing).
- Do not use Sikasil®-712 WS to seal joints in and around swimming pools.
- Do not use Sikasil®-712 WS for joints under water pressure or for permanent water immersion.
- Do not expose uncured Sikasil®-712 WS to alcohol containing products as this may interfere with the curing reaction.

ECOLOGY HEALTH AND SAFETY

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

APPLICATION INSTRUCTIONS

SUBSTRATE PREPARATION

The substrate must be clean, dry, sound and homogeneous, free from oils, grease, dust and loose or friable particles. The following priming and/or pre-treatment procedures shall be followed:

Non-porous substrates

Float glass, coated glass, anodised aluminium and stainless steel have to be pre-treated using Sika® Aktivator-205, Sika® Aktivator-100 or Sika® Cleaner P. Powder coated and PVDF coated metals have to be pre-treated using Sika® Aktivator-205. For details like application and flash-off times refer to the most recent PDS of the respective pre-treatment product.

Porous substrates

Concrete, aerated concrete and cement based renders, mortars and bricks shall be primed using Sika® Primer-3 N or Sika® Primer-210. For details like application and flash-off times refer to the most recent PDS of the respective pre-treatment product. Adhesion tests on project specific substrates must be performed prior to application. For more detailed advice and instructions please contact Sika technical service.

Note: Primers are adhesion promoters. They are neither a substitute for the correct cleaning of a surface, nor do they improve the strength of the surface significantly.

APPLICATION METHOD / TOOLS

Sikasil®-712 WS is supplied ready to use.

After the necessary substrate preparation, insert a suitable backing rod to the required depth and apply pre-treatment if necessary. Insert a foil pack or cartridge into the sealant gun and extrude Sikasil®-712 WS into the joint making sure that it comes into full contact with the sides of the joint and avoids any air entrapment.

Sikasil®-712 WS sealant must be firmly tooled against the joint sides to ensure adequate adhesion. It is recommended to use masking tape where exact joint lines or neat lines are required. Remove the tape within the skin time.

CLEANING OF TOOLS

Clean all tools and application equipment immediately after use with Sika® Remover-208 and/or Sika® Cleaning Wipes-100. Once cured, residual material can only be removed mechanically.

LOCAL RESTRICTIONS

Please note that as a result of specific local regulations the performance of this product may vary from country to country. Please consult the local Product Data Sheet for the exact description of the application fields.

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 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 written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. 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. It may be necessary to adapt the above disclaimer to specific local laws and regulations. Any changes to this disclaimer may only be implemented with permission of Sika® Corporate Legal in Baar.

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Product Data Sheet

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