

PRODUCT DATA SHEET

SikaSeal®-411 GG

TWO COMPONENT GUN GRADE POLYSULPHIDE SEALANT

DESCRIPTION

SikaSeal®-411 GG (substitute for Sika® Polysulphide GG) is a cross linked polysulphide based elastic sealant for vertical and horizontal expansion joints. Suitable for use in hot and tropical climatic conditions.

USES

It is used in both vertical and horizontal expansion joints in many types of buildings and civil engineering constructions such as:

- Retaining walls
- Underpasses, tunnels and reservoirs
- Precast concrete elements
- Bridges
- High and low rise buildings
- Oil and gas projects
- Wherever a permanently flexible seal is required

CHARACTERISTICS / ADVANTAGES

- Easy to use
- Economical
- Excellent adhesion with many materials
- Non- sag in vertical and overhead joints
- Good chemical resistance
- Permanently elastic
- Good weather resistance

SUSTAINABILITY

VOC content <60 g/l US EPA 24

APPROVALS / CERTIFICATES

SikaSeal®-411 GG complies with ASTM C920, Type M, Grade NS, Class 25
SikaSeal®-411 GG complies with BS EN ISO 11600:2002

PRODUCT INFORMATION

| | | |
|--|--|---------------------|
| Composition | Cross linking polysulphide | |
| Packaging | Ready to mix packing 4.0 L | (Comp. A + Comp. B) |
| Colour | Grey | |
| Shelf life | SikaSeal®-411 GG has a shelf life of 12 months from the date of production, if it is stored in undamaged, original, sealed packaging, and if the storage conditions are met. | |
| Storage conditions | SikaSeal®-411 GG shall be stored in dry conditons, where it is protected from direct sunlight and at temperatures between +5 °C and +30 °C. | |
| Density | ~1.60 kg/l | (ASTM D 792) |
| Volatile organic compound (VOC) content | <60 g/l (less water) | (US EPA 24) |
| Solid content | ~98% | |

TECHNICAL INFORMATION

| | | |
|---------------------|---|--------------|
| Shore hardness | ~24 (14d) | (ASTM C 661) |
| Movement capability | +/-25 % | (ASTM C 719) |
| Service temperature | -20 °C min. / +80 °C max. | |
| Joint design | Joint configuration Minimum Joint width: 6 mm Maximum Joint width: 50 mm | |

Width: Depth Ratio

The joint width must be designed to suit the movement capability of the sealant. Joints expected to movement a width to depth ratio of approximately 2 : 1 must be maintained. For butt joint the width to depth ratio should be 1 : 1.

Minimum joint depth is recommended:

- 6 mm for non-porous surfaces
- 8 mm for porous surfaces
- 20 mm for trafficked joints and joints that are exposed to hydrostatic pressure

At chamfered elements, don't fill the chamfer with sealant.

APPLICATION INFORMATION

| | | |
|----------------------------|--|--------------|
| Ambient air temperature | +5 °C min. / +50 °C max. | |
| Substrate temperature | +5 °C min. / +50 °C max. | |
| Substrate moisture content | Dry joint with sound concrete edges. For joints under wet conditions, use Sika®-Primer-PS. | |
| Pot Life | ~2h (23°C) | |
| Curing time | ~1 week (23 °C / 50 % r.h.) | |
| Tack free time | <72h | (ASTM C 679) |

BASIS OF PRODUCT DATA

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

IMPORTANT CONSIDERATIONS

- **Do not use in contact with drinking water or food.**
- Sealant joint movement should not exceed +/-25 % of the joint width when installed in a width to depth ratio of 2 : 1.
- SikaSeal®-411 GG is chemical resistant (occasional spillages) to diluted acids, diluted alkalis, aviation fuel, kerosene, lubrication oils, skydrol and white spirit.
- SikaSeal®-411 GG is not chemical resistance to chlorinated solvents, aromatic solvent and diluted oxidizing acids.
- SikaSeal®-411 GG must be fully cured before permanent immersion in water.
- Paint compatibility with sealant should be checked prior to painting.

ECOLOGY, HEALTH AND SAFETY

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.

APPLICATION INSTRUCTIONS

SUBSTRATE PREPARATION

All surfaces must be clean, dry and free from any loosely adhering particles. Check the joints edges for soundness and if found weak cut recess and fill up with suitable repair mortar (Consult Sika Technical Department). Correct joint depth can be established by inserting closed cell polyethylene backing rod tightly into the joint. When the joints have been filled with fiber filled board, this must be raked back to the required depth. Use bond breaker tape over the backer material. Protect surfaces with masking tape.

PRIMING

Sika® Primer PS should be used as a primer only on two sides of the joint. The flash off time is minimum 30 minutes and maximum 3 hours.

MIXING

The product is packed in a 4 litre tin, containing the base and curing agent, ready to mix in the appropriate ratios. Mix the product thoroughly with a mixing paddle fitted to an electric hand drill not exceeding 500 rpm to avoid entrapping air. Mix for approximately 5 minutes until a smooth, even consistency is achieved.

APPLICATION METHOD / TOOLS

Where required, protect the surface with masking tape. To place, load the mixed sealant directly into bulk or caulking gun or using a follower plate loading system. Install the sealant into the joint without trapping air with consistent pressure to force the sealant into the joint. Tool-off with a spatula to form slightly concave profile. Remove masking tape.

CLEANING OF EQUIPMENT

Clean all tools and application equipment with Sika® Colma Cleaner immediately after use. Hardened / cured material can only be mechanically removed.

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LOCAL RESTRICTIONS

Note that as a result of specific local regulations the declared data and recommended uses for this product may vary from country to country. Consult the local Product Data Sheet for exact product data and uses.

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.



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ISO 14001: Sika UAE LLC,
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All products are supplied under a management system certified to conform to the requirements of the quality, environmental and occupational health & safety standards ISO 9001, ISO 14001 and OHSAS 18001.

Product Data Sheet

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