

PRODUCT DATA SHEET

SikaSeal[®]-470 GG Plus

(formerly MSeal 470)

High performance, elastomeric, non-sag, polysulphide joint sealant

DESCRIPTION

SikaSeal[®]-470 GG Plus is a high grade, chemically curing, two component polysulphide based sealant that forms a tough, flexible, durable, rubber like material which adheres to most common construction surfaces and provides weatherproof seal in joints subject to a high degree of deformation or continuous cyclic movement.

USES

- Bridges, tunnels and other civil engineering structures
- Precast concrete paneling and high-rise buildings
- Concrete and brick foundations, retaining walls and bridge abutments
- Secondary containment areas
- Wet areas such as kitchens, laundries, bathrooms and showers, beneath tiles
- Terraces, decks and balconies
- Floor joints subject to heavy usage and traffic
- Industrial areas and those subject to chemical spillage
- Remedial repairs to asphalt, concrete, fiber reinforced cement or similar slab surface
- As a bolt hole sealant for the Wabo[®] expansion joints range

FEATURES

- Forms a tough, flexible, elastomeric, weatherproof seal
- Excellent resistance to deterioration due to weathering, ozone, U.V. light and high climatic and in-use temperatures
- Excellent chemical resistance
- Durable weatherproof sealing even in joints with high levels of deformation ($\pm 25\%$) or repeated cyclic movement of compression and extension over a wide temperature range
- Excellent storage stability of base and curing agent ensures excellent shelf life
- Excellent adhesion to concrete, brickwork, metal, tiling, masonry, stone, steel and glass (check need for primer)
- Lead free curing compounds ensure that the product is safe for handling and application
- SikaSeal[®]-470 GG Plus has a unique, single container packaging eliminating mistakes in mix ratios, minimizing packaging waste and providing convenience to user

CERTIFICATES AND TEST REPORTS

- ASTM C920, Type M, Grade NS, Class 25, Use T,M&O
- Passes fuel resistance acc. BS 5212: Part 1: 1990
- BS EN ISO 11600, Type F, Class 25LM

PRODUCT INFORMATION

Packaging	Ready to mix 4 L packing (Comp. A + Comp. B)
Appearance and colour	Thixotropic paste available in black or grey colour
Shelf life	12 months from production date
Storage conditions	SikaSeal®-470 GG Plus shall be stored in dry conditions, where it is protected from direct sunlight and at temperatures between +5 °C and +25 °C.
Density	~1.60 kg/l (at 25 °C)

TECHNICAL INFORMATION

Shore A hardness	~25
Chemical resistance	Resistant to many chemicals, contact Sika Technical Department for details.

Joint design	Joint configuration Minimum Joint width: 6 mm Maximum Joint width: 50 mm
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Width: Depth Ratio

The joint width must be designed to suit the movement capability of the sealant. For movement joints, 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
- 10 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 to +45 °C, min. 3 °C above dew point temperature	
Substrate temperature	+5 °C to +45 °C	
Curing time	Initial cure time for light traffic	Final cure for chemical attack or water immersion
	~24 h (at 25 °C) ~5 h (at 40 °C)	~14 days (at 25 °C) ~7 days (at 40 °C)

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.

FURTHER DOCUMENTATION

- Method Statement

IMPORTANT CONSIDERATIONS

- SikaSeal®-470 GG Plus must be fully cured before permanent immersion in water.
- Joints subject to total immersion should have a 1:1 (width to depth) ration.
- Joints should be designed so total movement does not exceed the $\pm 25\%$ related to the joint width.
- When using filler boards in expansion joints to achieve the correct depth, it is essential to use a backer rod or insert a bond breaking tape into the joint in order to prevent 3-side adhesion.
- 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.
- 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.

Concrete and Masonry

- Surfaces must be clean and dry.
- Wire brush thoroughly and remove dust and all contaminants.

Metals

- Remove any corrosion or millscale by grit or shot-blast, wirebrush, grinder or chemical remover.
- De-grease the surfaces with clean cloths soaked in oil-free cleansing solvent.

Wood (bare)

- Wood surfaces must be clean and dry, cut back or abrade where necessary to sound timber.

Glass and glazed materials

- Thoroughly clean the surfaces with clean cloths soaked in oil-free cleansing solvent.

Coating surfaces

- Coating should be removed and the surfaces treated as above.

Priming

- Application of Sika® Primer-101 should not be carried out below 5°C.
- A single coat of primer should be applied by brush in accordance with the instructions on the primer tins.
- Sika® Primer-101 must be allowed to dry to a tack free state before applying SikaSeal®-470 GG Plus.
- SikaSeal®-470 GG Plus should be applied within 3 hours of primer, otherwise repriming will be necessary.

MIXING

- Mix and use one complete unit at a time. Do not subdivide.
- SikaSeal®-470 GG Plus is supplied with base and catalyst in the same single container.
- Mix curing agent with base material for 5 - 10 minutes using a suitable paddle fitted to a 500 rpm electric drill moving the paddle completely through the mass of the material.
- The sides and base of the container should be periodically scraped down with a palette knife to ensure all of the catalyst is completely blended with the base component.
- Failure to mix correctly will result in uncured sealant.
- Once mixed SikaSeal®-470 GG Plus should be used immediately.

APPLICATION

- Where required, protect the surface with masking tape.
- Sealant is formulated to be applied using a sealant gun but may be applied by trowel, if required.
- Sealant guns are fitted with conical nozzles which can be cut to suit the joint width.
- The sealant should be gunned into the joint using uneven trigger pressure, cleaning the nozzle occasionally to avoid contamination.
- Deep joints should be filled in two or more runs, to prevent air entrapment.
- When applying the sealant to a vertical joint, start application at the bottom of the joint so as to continuously support the sealant.
- Applied sealant should be tooled to a smooth finish.
- A minimum of surface lubricant such as dilute soap solution may be used to assist the process.
- Any masking tape should be removed immediately after tooling.

CLEANING OF EQUIPMENT

- Application equipment should be cleaned immediately with Sika® Colma Cleaner, acetone or any suitable cleaning solvent after use.
- Hardened / cured material can only be mechanically removed.

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 9001, 14001 – TÜV
Sika MB Construction Chemicals LLC
Sika Construction Chemicals
for Manufacturing LLC
ISO 9001 – LMS
Sika MB LLC

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 ISO 45001.



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