

PRODUCT DATA SHEET

Sika® Drain GEO S

SYNTHETIC DRAINAGE SHEETS WITH EMBEDDED GEOTEXTILE

DESCRIPTION

Sika® Drain GEO S is a sheet based on HDPE (high density polyethylene) with embedded geotextile, suitably configured to facilitate drainage groundwater.

USES

Sika® Drain GEO S is used as a protection sheet for waterproofing systems and for facilitation of water drainage in underground projects, such as gardens, retaining walls, bridge piers, e.t.c. It is also used as protection sheet in tunnels, green roofs, window boxes, e.t.c.

CHARACTERISTICS / ADVANTAGES

- Very high resistance against chemical attack
- Resistant against root penetration
- Especially economical solution
- Easy to apply
- High mechanical strength

Sika® Drain GEO S creates a gap between the building element and the backfill, facilitating thus the air, water and vapour circulation and enhances the secure functioning of the waterproofing system. Due to its exceptional strength, protects the waterproofing system from mechanical stress and injuries during the backfilling process.

PRODUCT INFORMATION

Chemical base	Shaped sheet of high density polyethylene (HDPE) with integrated geotextile (PP).		
Packaging	Roll size: 2.40 m (width) x 20.00 m (length) Weight: ~ 600 gr/m ²		
Appearance / Colour	Sheets in rolls Surface: Flat with tapered shaped flares and embedded geotextile. Colour: Brown (sheet) – White (geotextile)		
Shelf life	The product does not expire during correct storage conditions.		
Storage conditions	Rolls should be stored at dry conditions and in horizontal or vertical position, protected from direct sunlight, rain and snow.		
Thickness	With 2kPa load 7.5mm (±1)		(EN ISO 9863-1)
Unit weight	Composite system 600 ±30 gr/ m ²	Geotextile 100 gr/ m ² (±10)	(EN ISO 9864)

TECHNICAL INFORMATION

Resistance to Static Puncture	Test CBR 1150 N (-175)	(EN ISO 12236)
Resistance to Dynamic Perforation	38 mm (+8)	(EN ISO 13433)
Compression Resistance	200 KN/m ² (±30)	
Tensile Strength	Composite system 10 KN/m (±2)	Geotextile 7.5 KN/m (±2) (EN ISO 10319)
Elongation	Composite system 30% (±5)	Geotextile > 45% (EN ISO 10319)
Water Permeability	110 mm/s (-35)	(EN ISO 11058)
Opening Size	100 micron (±30)	(EN ISO 12956)
Drain Flow Capacity	1.9 lt/(m.s) ± 0.2 [MD (20kPa, S/R, i=1)]	(EN ISO 12958)

SYSTEMS

System Structure

Ancillary products:

- Sika® Drain Profile – special piece ending with dimensions 2.00 m (length) x 7 cm (width), consisting of high density polyethylene (HDPE) for protection of the cuts
- Sika® Drain Plugs & Nails – special pins with plastic plugs for fastening pieces and parts

APPLICATION INSTRUCTIONS

SUBSTRATE QUALITY

The substrate must be sound, clean, dry and free from all surface contaminants.

Before placing the Sika® Drain GEO S sheets, the chosen waterproofing system must have been applied and the application completed. In case the system includes a surface applied product, this product must be fully cured. Also, an escape route for the drainage water must be ensured, either to the subgrade or in the event of high flow with conventional drainage pipes (perforated drainage pipes) and coarse aggregates, loosely applied.

APPLICATION METHOD / TOOLS

Sika® Drain GEO S sheets can be placed with the tapered shaped flares against the substrate that is going to be protected or otherwise. The fixation of the sheets is done using steel nails every 25 cm approximately, at the coronation of the building element. Overlaps should be done with care, to prevent penetration of the soil between the sheets. The recommended minimum overlap width is 20 cm.

LIMITATIONS

After the installation and mounting of the sheets on the surface, fix the upper end of Sika® Drain GEO S with the special piece Sika® Drain Profile. Otherwise, in order to prevent soil penetration, seal the inner gap between the system configurations and the waterproofing systems with a sealant (i.e. Sikaflex® Pro-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.

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.

ECOLOGY, HEALTH AND SAFETY

This product is an article as defined in article 3 of regulation (EC) No 1907/2006 (REACH). It contains no substances which are intended to be released from the article under normal or reasonably foreseeable conditions of use. A safety data sheet following article 31 of the same regulation is not needed to bring the product to the market, to transport or to use it. For safe use follow the instructions given in this product data sheet. Based on our current knowledge, this product does not contain SVHC (substances of very high concern) as listed in Annex XIV of the REACH regulation or on the candidate list published by the European Chemicals Agency in concentrations above 0.1% (w/w).

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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