



**PRODUCT DATA SHEET**

Edition 07.2018/v1  
CSC Master Format™ 07 10 00  
DAMPPROOFING AND WATERPROOFING

# Sika® Drainage Mat 420/720/1000/GRS

## PREFABRICATED DRAINAGE COMPOSITES

<b>Description</b>	<p>Sika® Drainage Mat composites are available in both high flow dimpled core and high crush resistant geonet constructions. They perform a multi-faceted role by providing protection for the Sikalastic® RoofPro and Sikalastic®-320 membranes as well as a means of collecting and conveying excess water in plaza decks, split slabs, planters, roof gardens and other roofing and waterproofing applications.</p> <p><b>Sika® Drainage Mat 420 &amp; 720</b> Impermeable high flow dimpled polypropylene drainage core heat-bonded to a layer of nonwoven polypropylene (420) or woven polypropylene (720) filtre fabric on the top side and a polyethylene membrane protection film on the bottom side. The filtre fabric retains soil or sand particles as well as freshly placed concrete or grout, allowing filtered water to pass into the drainage core. Use the nonwoven filtre fabric with soil, sand or stone ballast; use the woven filtre fabric with freshly placed concrete or grout.</p> <p><b>Sika® Drainage Mat 1000</b> High density polyethylene geonet drainage core with its ridges heat-fused to a layer of nonwoven polypropylene filtre fabric on the top side and a heavy duty nonwoven polypropylene membrane protection fabric on the bottom side. The filtre fabric retains soil or sand particles as well as freshly placed concrete or grout, allowing filtered water to pass through to the core. The bottom protection fabric provides cushioning for the waterproofing membrane. The geonet core is highly crush resistant yet flexible enough to conform to irregular surfaces. Sika® Drainage Mat 1000 is suitable for heavy loads and split slabs exposed to vehicular traffic.</p> <p><b>Sika® Drainage Mat GRS</b> Sika® Drainage Mat GRS for vegetated roof assemblies consists of an impermeable dimpled polystyrene drainage core. The core is perforated, then bonded to a root resistant nonwoven polypropylene filtre fabric on the top side and nonwoven polypropylene membrane protection fabric on the bottom side. The filtre fabric helps prevent roots from affecting the efficiency of the drainage/aeration layer as well as retaining soil or other fine particles from being washed away and allows water to pass into the drainage core. The bottom protection fabric provides cushioning for the waterproofing membrane. The core is installed dimpled side down to allow water retention within the cups. Excess water is collected and conveyed to a proper collection system, helping to control drainage flow.</p>
<b>Where to Use</b>	<ul style="list-style-type: none"><li>▪ Plaza decks</li><li>▪ Split slabs</li><li>▪ Planters</li><li>▪ Ballasted roofs</li><li>▪ Green roofs</li><li>▪ Foundation walls</li></ul>
<b>Advantages</b>	<ul style="list-style-type: none"><li>▪ Variable flow and compressive strength configurations</li><li>▪ High crush resistant configurations for vehicular traffic</li><li>▪ Pre-assembled filtration and membrane protection layers</li><li>▪ Conformable to irregular surfaces</li><li>▪ Mildew and rot resistant</li></ul>

**Technical Data**

<b>Packaging</b>	1.2 x 15.24 m (4 x 50 ft) rolls (Individual rolls packaged in plastic bags) Note: Sika Drainage Mat 420 is also available in 1.98 x 15.24 m (6.5 x 50 ft) rolls (Individual rolls packaged in plastic bags)			
<b>Shelf Life</b>	Indefinite. Store properly in original, unopened, undamaged sealed packaging in dry conditions, flat and wrinkle-free at temperatures between 4 and 35 °C (40 and 95 °F)			
<b>Typical Technical Properties Core</b>	Sika® Drainage Mat 420	Sika® Drainage Mat 720	Sika® Drainage Mat 1000	Sika® Drainage Mat GRS
<b>Compressive Strength (ASTM D1621)</b>	718 KN (15,000 psf)	1005 KN (21,000 psf)	1915 KN (40,000 psf)	455 KN (9,500 psf)
<b>Thickness (ASTM D1777)</b>	10 mm (0.40 in)	10 mm (0.40 in)	6 mm (0.25 in)	25.4 mm (1 in)
<b>Flow (ASTM D4716, Hydraulic Gradient =1)</b>	261 L/min/m (21 US gal/min/ft)	286 L/min/m (23 US gal/min/ft)	106 L/min/m (9 US gal/min/ft)	372 L/min/m (30 US gal/min/ft)
<b>Filtre Fabric</b>				
<b>Water Flow Rate (ASTM D4491)</b>	5,704 L/min/m <sup>2</sup> (140 US gal/min/ft <sup>2</sup> )	2,460 L/min/m <sup>2</sup> (60 US gal/min/ft <sup>2</sup> )	4,481 L/min/m <sup>2</sup> (110 US gal/min/ft <sup>2</sup> )	10,186 L/min/m <sup>2</sup> (250 US gal/min/ft <sup>2</sup> )
<b>Puncture (ASTM 6241)</b>	1.11 KN (250 lb)	3.78 KN (850 lb)	1.83 KN (410 lb)	1.06 KN (238 lb)
<b>Apparent Opening Size</b>	0.21 mm (70 US Sieve)	0.43 mm (40 US Sieve)	0.21 mm (70 US Sieve)	0.21 mm (70 US Sieve)
<b>Grab Tensile (ASTM D4632)</b>	0.45 KN (100 lb)	1.64 KN (310 lb)	0.71 KN (160 lb)	0.34 KN (75 lb)
<b>Water Retention</b>	N-A	N-A	N-A	4.07 L/m <sup>2</sup> (1.1 gal/10 ft <sup>2</sup> )
<b>Weight</b>	18.60 kg (41 lb)	22.68 kg (50 lb)	24.95 kg (55 lb)	39.91 kg (88 lb)
<b>VOC Content</b>	N/A			
<b>Chemical Resistance</b>	Consult Sika Canada			

*Product properties are typically averages, obtained under laboratory conditions. Reasonable variations can be expected on-site due to local factors, including environment, preparation, application, curing and test methods.*

**HOW TO USE**

**Surface Preparation** Surface must free of loose debris and objects that may damage the Sika® Drainage Mat.

**Application** Install Sika® Drainage Mat directly on Sikalastic® RoofPro and Sikalastic®-320 membranes with filtre fabric side up and membrane protection layer down and in the direction of maximum slope. Attach mat to membrane surface with approved Sikaflex® sealant or SikaBond® adhesive as necessary to keep in position. At edge overlaps, place adjacent panels so the cores abut and secure the fabric at 900 - 1500 mm (3 - 5 ft) intervals with Sikaflex® or SikaBond®. At roll ends and abutments without overlaps, peel back fabric and remove 100 mm (4 in) of core then secure overlap. All core joints and terminations must be covered by fabric overlay.

**Limitations**

- Do not expose Sika® Drainage Mats to direct sunlight for extended periods of time.
- Do not expose to aromatic hydrocarbons (i.e., jet fuel, diesel fuel, kerosene, etc.)

**Health and Safety Information** Sika® Drainage Mat are manufactured articles/finished goods that do not require Safety Data Sheets to be marketed, transported or applied at the jobsite. Based on our current knowledge, these products are not classified as dangerous and do not contain any hazardous materials. Always wear personal protective equipment (including safety goggles and gloves) to manipulate and install Sika® products.

KEEP OUT OF REACH OF CHILDREN  
FOR INDUSTRIAL USE ONLY

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, within their shelflife. 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 recommendations, or from any other advice offered. The information contained herein does not relieve the user of the products from testing them for the intended application and purpose. 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 or may be downloaded from our website at: [www.sika.ca](http://www.sika.ca)

**SIKA CANADA INC.**

**Head Office**  
601, avenue Delmar  
Pointe-Claire, Quebec  
H9R 4A9

**Other locations**  
Toronto  
Edmonton  
Vancouver

**1-800-933-SIKA**  
[www.sika.ca](http://www.sika.ca)

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