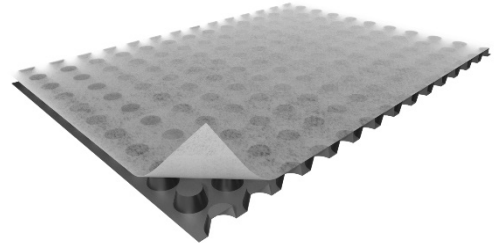


IKO Plasdrain Drainage Mats

Technical Data Sheet – Section 1.60

PRODUCT INFORMATION

IKO Plasdrain Drainage Mats are manufactured from a three-dimensional polymer core with a geotextile filter fabric bonded to one side. This creates a highly effective drainage void whilst the geotextile filter fabric prevents penetration of the drain by unwanted small fines such as sand, soil, etc. which can cause blockages. The impermeable core prevents water pressure from building against the structure being protected.



Product	Product Code
Plasdrain 6	79600006
Plasdrain 12	79600012
Plasdrain 25	79600025

USE

IKO Plasdrain Drainage Mats actively reduce the hydrostatic pressure acting upon a waterproofing system by exhibiting higher flow rates than that of mineral drainage systems.

When used as part of a waterproofing system designed to BS8102:2022 (Code of Practice for the protection of below ground structures against water ingress), they contribute to tanking system performance and offer an increased puncture resistance against backfill.

FEATURES & BENEFITS

High Flow Capacity - exhibits higher flow rates than that of mineral drainage systems without clogging from small fines.

Increased Performance - contributes to IKO Hyload tanking performance, reducing the effects of hydrostatic pressure acting upon the structure.

Cost Effective - when compared to imported mineral drainage material to site.

Ease of Installation - less labour intensive, the product exhibits high strength to weight.

Chemical Resistance - offers resistance to most acids, alkalis, oils, fuels, chlorides and sulphate encountered within the soil.

Organic Resistance - resistant to micro-biological attack.

PERFORMANCE & COMPOSITION

Please refer to corresponding data tables at the end of this document.

APPLICATION

IKO Plasdrain Drainage Mats should be temporarily secured to vertical surfaces using IKO Hyload Jointing Tape No2. Three strips of tape should be positioned parallel to the length and equidistant across the mat. Remove the silicone release paper and press into position.

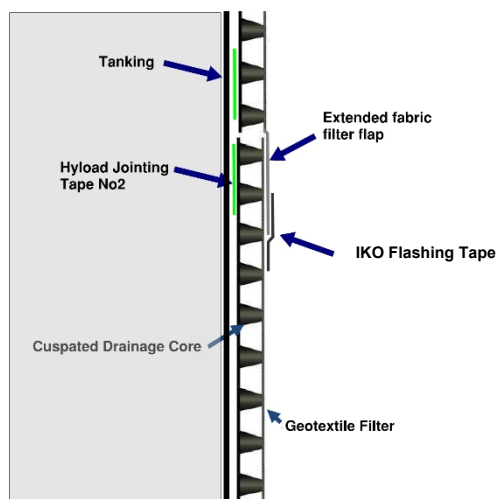


Figure 1 - Overlapping

When jointing sheets (Figure 1), the extended geotextile fabric flap should overlap onto the lower sheets' geotextile surface, and the free edge secured with IKO Flashing Tape.

When used as part of a structural waterproofing system, this product should be used in conjunction with perforated land drainage pipes wrapped with a geotextile membrane.

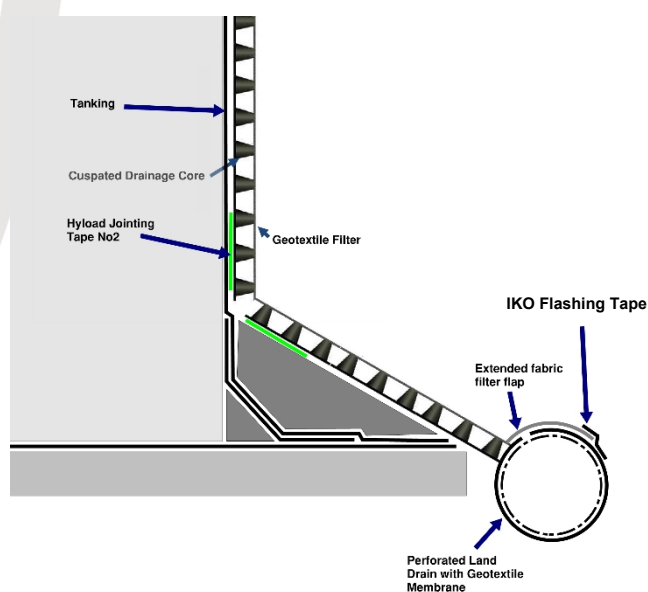


Figure 2 - Interface with perforated land drain



The product should link with the integral geotextile fabric on the IKO Plasdrain Drainage Mat as illustrated within Figure 2.

When jointing the IKO Plasdrain Drainage Mat together with the wrapped membrane, the leading edge should be secured with IKO Flashing Tape.

In all instances, sequential backfilling will be required to hold the membrane in place as detailing is completed, and work progresses.

SITE STORAGE

General

Material should be stored in the dry, under cover, and protected against damage. Materials should be kept away from direct sources of heat.

IKO Plasdrain 6mm

Thickness at 2kPa	(mm)	6.1	±10%	EN ISO 9863-1
Mass per unit area	(g/m ²)	670	approx	EN ISO 9864
Tensile strength MD / CMD	(kN/m)	13 / 13	-10%	EN ISO 10319
Elongation at peak MD / CMD	(%)	45 / 45	nominal	EN ISO 10319
CBR puncture resistance	(N)	2 250	-20%	EN ISO 12236
<u>Perpendicular Water Inflow</u> (dimple side only)				
Water flow at 50mm head	(l/m ² .s)	103	±30%	EN ISO 11058
At 2kPa permeability (coefficient)	(m/s)	2.5 x 10 ⁻³	±30%	EN ISO 11058
Breakthrough head	(mm)	0		BS 6906 pt 3

<u>In-plane water flow MD and CMD</u>		<u>HG = 1.0</u>		<u>HG = 0.1</u>		<u>Hydraulic gradient</u>
at 20kPa confining pressure	(l/m ² .s)	1.60	±0.15	0.48	±0.05	EN ISO 12958
at 100kPa confining pressure	(l/m ² .s)	1.35	±0.15	0.38	±0.05	EN ISO 12958
at 200kPa confining pressure	(l/m ² .s)	1.10	±0.15	0.29	±0.05	EN ISO 12958
with soft foam contact surfaces to simulate textile intrusion into the core due to soil pressure						

Resistance to weathering	To be covered in 14 days			EN 12224
Resistance to chemicals	Excellent			EN 14030
Design life	120 years (manufacturer's declaration)			

Geotextile Properties

Thickness at 2kPa	(mm)	1.2	±20%	EN ISO 9863-1
Tensile strength MD/CMD	(kN/m)	9.5 / 9.5	-13%	EN ISO 10319
Pore size O ₉₀	(µm)	120	±30%	EN ISO 12956
CBR puncture resistance	(N)	1 600	-20%	EN ISO 12236
Dynamic perforation cone drop	(mm)	32	+20%	EN ISO 13433
Type and material	Non-woven needle-punched and heat-treated long staple fibre polypropylene			

Product Dimensions

Standard roll dimensions	1.1 m x 50 m
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IKO Plasdrain 12mm

Thickness at 2kPa	(mm)	12.0	±10%	EN ISO 9863-1		
Mass per unit area	(g/m²)	1070	approx	EN ISO 9864		
Tensile strength MD / CMD	(kN/m)	18 / 15	-10%	EN ISO 10319		
Elongation at peak MD / CMD	(%)	45 / 45	nominal	EN ISO 10319		
CBR puncture resistance	(N)	2 300	-20%	EN ISO 12236		
<u>Perpendicular Water Inflow</u>	(dimple side only)					
Water flow at 50mm head	(l/m²·s)	103	±30%	EN ISO 11058		
At 2kPa permeability (<i>coefficient</i>)	(m/s)	2.5 x 10 ⁻³	±30%	EN ISO 11058		
Breakthrough head	(mm)	0		BS 6906 pt 3		
<u>In-plane water flow MD and CMD</u>		<u>HG = 1.0</u>	<u>HG = 0.1</u>	<u>Hydraulic gradient</u>		
at 20kPa confining pressure	(l/m·s)	4.25	-35%	1.25	-35%	EN ISO 12958
at 100kPa confining pressure	(l/m·s)	3.20	-35%	0.85	-35%	EN ISO 12958
at 200kPa confining pressure	(l/m·s)	1.80	-35%	0.45	-35%	EN ISO 12958
with soft foam contact surfaces to simulate textile intrusion into the core due to soil pressure						
Resistance to weathering		To be covered in 14 days			EN 12224	
Resistance to chemicals		Excellent			EN 14030	
Design life		120 years (manufacturer's declaration)				

Geotextile Properties

Thickness at 2kPa	(mm)	1.2	±20%	EN ISO 9863-1
Tensile strength MD/CMD	(kN/m)	9.5 / 9.5	-13%	EN ISO 10319
Pore size O ₉₀	(µm)	120	±30%	EN ISO 12956
CBR puncture resistance	(N)	1 600	-20%	EN ISO 12236
Dynamic perforation cone drop	(mm)	32	+20%	EN ISO 13433
Type and material	Non-woven needle-punched and heat-treated long staple fibre polypropylene			

Product Dimensions

Standard roll dimensions	1.1 m x 50 m
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IKO Plasdrain 25mm

Thickness at 2kPa	(mm)	26.2	±10%	EN ISO 9863-1
Mass per unit area	(g/m ²)	1 670	approx	EN ISO 9864
Tensile strength MD / CMD	(kN/m)	19 / 19	-10%	EN ISO 10319
Elongation at peak MD / CMD	(%)	45 / 45	nominal	EN ISO 10319
CBR puncture resistance	(N)	3 000	-20%	EN ISO 12236
Water storage capacity	(l/m ²)	18.9	When installed within a tanked enclosure or planter	
Void space	(%)	75		
<u>Perpendicular Water Inflow</u> (dimple side only)				
Water flow at 50mm head	(l/m ² ·s)	103	±30%	EN ISO 11058
At 2kPa permeability (<i>coefficient</i>)	(m/s)	2.5 x 10 ⁻³	±30%	EN ISO 11058
Breakthrough head	(mm)	0		BS 6906 pt 3

<u>In-plane water flow MD and CMD</u>		<u>HG = 1.0</u>		<u>HG = 0.1</u>		<u>Hydraulic gradient</u>
at 20kPa confining pressure	(l/m·s)	11.0	-10%	4.0	-10%	EN ISO 12958
at 100kPa confining pressure	(l/m·s)	9.0	-10%	3.0	-10%	EN ISO 12958
with soft foam contact surfaces to simulate textile intrusion into the core due to soil pressure						

Resistance to weathering	To be covered in 14 days			EN 12224
Resistance to chemicals	Excellent			EN 14030
Design life	120 years (manufacturer's declaration)			

Geotextile Properties

Thickness at 2kPa	(mm)	1.2	±20%	EN ISO 9863-1
Tensile strength MD/CMD	(kN/m)	9.5 / 9.5	-13%	EN ISO 10319
Pore size O ₉₀	(µm)	120	±30%	EN ISO 12956
CBR puncture resistance	(N)	1 600	-20%	EN ISO 12236
Dynamic perforation cone drop	(mm)	32	+20%	EN ISO 13433
Type and material	Non-woven needle-punched and heat-treated long staple fibre polypropylene			

Product Dimensions

Standard roll dimensions	0.915 m x 40 m.
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OTHER RELEVANT DOCUMENTATION

Where applicable, Material Safety Data Sheets (MSDS), Declaration of Performances (DoPs), and Third-Party Accreditations are available to view and download from the IKO website Resource Centre:

<https://ikogroup.co.uk/resource-centre/>

PRODUCT SUPPORT

Should you have any queries in relation to this product please contact one of the relevant teams below:

Technical	technical.ab@iko.com - For Reinforced Bitumen Membranes, IKOpro and Flexia Liquid Applied Waterproofing, Pitched Roofing, IKO Hyload Structural Waterproofing technical.ma@iko.com - For Mastic Asphalt technical.cc@iko.com - For Single Ply and Permatec Hot Melt
Sales	sales.uk@iko.com
Marketing	getintouch.uk@iko.com

COMPANY ACCREDITATIONS

IKO PLC, a roofing, waterproofing, and insulation company, holds various accreditations that demonstrate its commitment to quality, safety, and environmental responsibility. These include ISO certifications for quality management and occupational health and safety, British Board of Agrément (BBA) accreditations for specific products and systems, and Factory Mutual (FM) approval for certain roofing systems.

All our manufacturing plants have BS EN ISO 9001, BS EN ISO 14001, BS EN ISO 45001, and BES 6001 accreditation, meaning we match the quality and sustainability requirements and use responsibly sourced raw materials in our production. We also re-use by-products from manufacture, wrap products in minimal packaging, and we employ a streamlined transportation network.



IKO is also a leading member of all relevant trade associations such as NFRC, BFRA, SPRA, LRWA, MAC, RSTA, BJA and LCRIG having technical experts within the technical and standards committees to help us get informed first-hand about recent updates on technical requirements for the design and installation of roofing, waterproofing, road and bridge maintenance industry products.



DISCLAIMER

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IKO reserves the right to amend and/or withdraw this document without notice.

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