

TECHNICAL DATASHEET

FILDRAIN TYPE 5

PRODUCT DESCRIPTION

FILDRAIN TYPE 5 geocomposite drain is a high strength, robust, pre-formed sub-surface drainage system designed to remove infiltration water from the granular foundation layers of highway constructions. It consists of a geotextile filter, thermally bonded and fully wrapped over a cusped HDPE (High Density Polyethylene) core. One side of the core is flat to give stability to the Fildrain and protection when backfilling. The product is effectively impermeable one side.

Fildrain TYPE 5 meets the requirements of the UK Highways Agency Manual of Contract Documents for Highway Works (MCDHW) which defines a Type 5 Fin Drain, and by Clause 514 of the specification for Highway Works (SHW) which dictates certain parameters.



GEOCOMPOSITE PROPERTIES		UNITS				TEST METHOD	
THICKNESS AT 2kPa	(mm)	27.1				EN ISO 9863-1	
MASS PER UNIT AREA	(g/m ²)	1 890				EN ISO 9864	
USABLE TENSILE STRENGTH MD/CMD	kN/m	40/31				EN ISO 10319	
IN-PLANE WATERFLOW MD + CMD		(HG=HYDRAULIC GRADIENT)					
AT 50 kPa CONFINING PRESSURE	(l/m.s)	10.0 at HG = 0.1		3.4	at HG = 0.1		EN ISO 12958
AT 100 kPa CONFINING PRESSURE	(l/m.s)	8.5 at HG = 0.1		3.0	at HG = 0.1		EN ISO 12958
SHORT-TERM EQUIVALENT LOAD	(kPa)	100				SHW CLAUSE 514	
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					EN14030	
DESIGN LIFE	120 YEARS (MANUFACTURER'S DECLARATION)						
GEOTEXTILE PROPERTIES							
THICKNESS AT 2kPa	(mm)	1.1				EN ISO 9863-1	
TENSILE STRENGTH MD/CMD	(kN/m)	14.4/15.5				EN ISO 10319	
ELONGATION AT BREAK MD/CMD	(%)	65/70				EN ISO 10319	
TEAR RESISTANCE	(N)	>200				ASTM D4533	
DYNAMIC PERFORATION CONE DROP	(mm)	24				EN ISO 13433	
CBR PUNCTURE RESISTANCE	(N)	2200				EN ISO 12236	
APPARENT OPENING SIZE O ₉₀	(µm)	70				EN ISO 12956	
WATERFLOW AT 50mm HEAD	(l/m ² .s)	75				EN ISO 11058	
BREAKTHROUGH HEAD	(mm)	0				BS 6906 pt 3	
TYPE & MATERIAL	NON-WOVEN NEEDLE PUNCHED LONG STAPLE FIBRE POLYPROPYLENE						
PRODUCT DIMENSIONS							
STANDARD ROLL DIMENSIONS	300,450,600, 750 & 900mm WIDTH x 50m. OTHER WIDTHS AND LENGTHS TO ORDER						

1. TCS Geotechnics is a trading name of Technical Civils Solutions Ltd.
2. TCS Geotechnics Ltd reserves the right to alter product specifications without prior notice.
3. It is the responsibility of all users to satisfy themselves that the above data is current.
4. The above figures are average values obtained from testing to current EN ISO standards.
5. TCS Ltd cannot accept responsibility for the performance of these products as the conditions of use are beyond our control.
6. Installation details are available on request.
7. The tolerance on roll length is 1.5% and on roll width is 1.0%
8. Guidance on interface shear strength, creep and certain other parameters is available is available. Site specific tests are strongly recommended.

REGISTERED OFFICE ADDRESS

Units 2 & 5 Tetbury Close
Martland Industrial Park
Wigan
Greater Manchester
WN5 0LA

