

## CUTEX GEOCOMPOSITE ROOT BARRIER

### 1. DESCRIPTION

A Geocomposite root barrier systems consisting of a copper sheet mechanically encapsulated between a woven polypropylene geotextile and a high strength nonwoven polypropylene geotextile. The copper acts as a signal layer that all plants avert their growth from. The copper foil only releases minute quantities of the copper ion. These do not constitute an ecosystem burden, or impact on groundwater.

### 2. APPLICATIONS

CuTex geocomposite can provide a direct protection of utilities' infrastructures such as foundations and drains from root intrusion, landfill caps and "green roofs". It will also provide a protection to roads, railways and dams.

### 3. FEATURES

Plant shoot/root primordia (growth tips) are averse to growing into the vicinity of copper concentrations. In essence, the roots/shoots turn their growth in a different direction when confronted with the copper foil. These principles make CuTex a suitable barrier for Japanese Knotweed growth as well as all other plants. The majority of the Japanese Knotweed rhizome exists in the upper layers of topsoil. It has been established that, in an infected area, 14,000kg/ha dry weight of Knotweed may exist in the top 250mm (Brock, 1994).



	TEST	UNIT	MEAN VALUES
<b>4. MECHANICAL PROPERTIES</b>			
STATIC PUNCTURE (CBR)	EN ISO 12236	kN	2.5
TENSILE STRENGTH (MD/CMD)	EN ISO 10319	kN/m	20
TENSILE ELONGATION (MD/CMD)	EN ISO 10319	%	35
<b>4. FILTER PROPERTIES</b>			
WATER PERMEABILITY	EN ISO 11058	l/s/m <sup>2</sup>	3.10 <sup>-4</sup>
<b>5. PHYSICAL PROPERTIES</b>			
COPPER THICKNESS	EN ISO 9863-1	μ	18
CARBON BLACK CONTENT (GEOTEXTILE)			1% ACTIVE CARBON BLACK
STANDARD COLOUR			BLACK
POLYMER			100% VIRGIN POLYPROPYLENE

- a) Mean values indicate the arithmetic mean derived from the samples taken for any one test as defined in the standard – usually an overall mean of five samples. Mean values are subject to tolerances based on 95% confidence limits as published on the product CE declaration of performance.
- b) Nominal Value indicates an average manufacturing norm and not a controlled performance parameter
- c) MD: Machine Direction (longitudinal to the roll)
- d) CMD: Cross Machine Direction (across the roll)
- e) Tensile testing is performed using extensometers

	TEST	VALUES
<b>6. DURABILITY GEOTEXTILE</b>		
WEATHERING 50J/m <sup>2</sup> (1 month)	EN ISO 12224	>90% RETAINED STRENGTH
MICROBIOLOGICAL RESISTANCE	EN ISO 12225	NO LOSS IN STRENGTH
RESISTANCE TO ACIDS & ALKALIS	EN ISO 14030	NO LOSS IN STRENGTH
OXIDATION AT 85 DAYS (100 YEARS)	EN ISO 13438	>90% RETAINED STRENGTH

- 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.

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