

# TechGeo DURABILITY HDPE SMOOTH 1.00 mm

**TechGeo DURABILITY HDPE SMOOTH** Geomembrane series was developed to overcome international standards and recommendations and aims to offer greater durability and enable a longer service life for the projects when specified.

Manufactured by a Blown Film process using latest generation high molecular weight virgin resins and additives, **TechGeo DURABILITY HDPE SMOOTH** has greater durability compared to standard market geomembranes.

In addition, it has high mechanical resistance and excellent chemical resistance.

Available sizes	
Width (m)	Length (m)
7.00	100

PROPERTIES	TEST METHOD	UNITY	1.00 mm 40 mils	TESTING FREQUENCY
Thickness (min.ave.)	ASTM D5199	mm	Nominal	Per roll
Formulated density (min.)	ASTM D1505/D792	g/cm <sup>3</sup>	0.94	90,000 kg
Tensile Properties – Yield Strength (min.ave.)	ASTM D6693 Type IV	kN/m	15	9,000 kg
Tensile Properties – Yield elongation (min.ave.)	ASTM D6693 Type IV	%	12	
Tensile Properties – Break strength (min.ave.)	ASTM D6693 Type IV	kN/m	27	
Tensile Properties – Break elongation (min.ave.)	ASTM D6693 Type IV	%	700	
Tear resistance (min.ave.)	ASTM D1004	N	125	20,000 kg
Puncture resistance (min.ave.)	ASTM D4833	N	320	20,000 kg
Stress Crack Resistance (min.)	ASTM D5397	h	750	GM 10 (GRI)
Carbon Black Content	ASTM D1603	%	2 – 3	9,000 kg
Carbon Black Dispersion	ASTM D5596	-	Nota (1)	20,000 kg
Oxidative Induction Time Standard OIT (min.ave.) High Pressure OIT (min.ave.)	ASTM D3895 ASTM D5885	min	125 800	90,000kg
Oven Aging* Standard OIT (min.ave.) High Pressure OIT (min.ave.)	ASTM D5721 ASTM D3895 ASTM D5885	%	55 80	Per Formulation
UV Resistance** Standard OIT (min.ave.) High Pressure OIT (min.ave.)	ASTM D7238 ASTM D3895 ASTM D5885	%	Nota (2) 65	Per Formulation

(1) Carbon black dispersion for 10 different views: 9 in categories 1 and 2; 1 in category 3

(2) Not recommended since the high temperature of the Standard OIT test produces an unrealistic result for some of the antioxidants in the UV exposed samples

Obs: roll tolerable variation in width and length: ±2%

\* (Retained after 90 days)

\*\* (Retained after 1.600hrs)