

# TechGeo Innov HDPE SMOOTH 3.00 mm

**TechGeo Innov HDPE SMOOTH** Geomembrane Series was developed under the most rigorous quality control procedures and composed of the latest generation resins. All a result of the state-of-the-art manufacturing process, which makes this product one of the most innovative in the market.

By maximizing the use of raw materials, **TechGeo Innov HDPE SMOOTH** conciliates mechanical and chemical parameters required internationally with a lighter final product. Produced with high molecular weight resins, its main characteristics are excellent mechanical and chemical resistance, in addition to high durability.

Available sizes	
Width (m)	Length (m)
7.00	50

PROPERTIES	TEST METHOD	UNITY	3.00 mm	TESTING FREQUENCY
Thickness (ave.)	ASTM D5199	mm mils	2.70 mm (+/-5%) 106 mils	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	44	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	80	
Tensile Properties – Break elongation (min.ave.)	ASTM D6693 Type IV	%	700	
Tear resistance (min.ave.)	ASTM D1004	N	374	20,000 kg
Puncture resistance (min.ave.)	ASTM D4833	N	960	20,000 kg
Stress Crack Resistance (min.)	ASTM D5397	h	500	GM 10 (GRI)
Carbon Black Content	ASTM D1603	%	2 – 3	9,000 kg
Carbon Black Dispersion	ASTM D5596	-	Note (1)	20,000 kg
Oxidative Induction Time Standard OIT (min.ave)	ASTM D3895 ASTM D5885	min	100	90,000kg
Oven Aging * Standard OIT (min.ave) High Pressure OIT (min.ave.)	ASTM D5721 ASTM D3895 ASTM D5885	%	55 80	PER EACH FORMULATION
UV Resistance ** Standard OIT (min.ave.) High Pressure OIT (min.ave.)	ASTM D7238 ASTM D3895 ASTM D5885	%	Note (2) 50	PER EACH 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)