



Applicable in Landfills, liners and Mining Industry

Medium Density Polyethylene
Geomembrane Grade

MFI 3820



REACH Certified
Food Contact Compliance Certified

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Only 1% of the water on earth is suitable for drinking application and as living standards increase, the demand for water increases at twice the rate of population growth, so drinking water is rapidly becoming scarce and expensive. More than 20% of the world's population currently do not have an adequate supply of drinking water. Shortage of fresh water and the need for its better management and conservation is the major challenge of the 21st century.

Medium-density polyethylene (MDPE) geomembranes are the most widely used type of geomembrane in the world, especially for landfills and wastewater ponds. High chemical and mechanical resistance of MDPE along with low permeability coefficient and low production cost are the advantages of this product. Thanks to the unique gas phase technology and chromium catalyst, ASPC produces unique grades of MDPE for the production of geomembranes using the film blowing process.

MFI 3820 is an ethylene and 1-hexene copolymers that is used to produce high quality geomembranes for the following applications:

- ▶ Landfill
- ▶ Cap and closures
- ▶ Pond liner
- ▶ Mining
- ▶ Secondary containment
- ▶ Canal liners

MFI 3820 main characteristic:

- ▶ High tear resistance
- ▶ High strength
- ▶ Excellent process-ability
- ▶ Good seal-ability
- ▶ High ESCR



MFI 3820 Main Properties

PROPERTIES	PHYSICAL				MECHANICAL				PROCESSING METHOD
	Density 23°C	Melt Flow Rate		Tensile Modulus	Tensile Stress at Yield	Tensile Strain at Yield	Dart Drop Impact	Failure Energy	
		190°C, 2.16 kg	190°C, 21.6 kg						
Test Method	ISO 1183	ISO 1133-1		ISO 527-1, 2			ASTM D1709	DIN 53373	
Unit	g/cm ³	g/10 min		MPa		%	g	J/mm	
MFI 3820	0.938	0.25	20	650	20	10	120	7	Blown Film

ASPC Grade Naming

MFI: Medium Density PE for Film Blowing Process

First and Second Digit	Grade Typical Density (kg/m ³)	Third and Fourth Digit	HLMI (g/10min, 21.6 kg at 190°C)
38	938	20	20