

Raw Material

High Density Polyethylene

ATARFIL HD is a geomembrane manufactured from maximum quality high density polyethylene HDPE resins, duly contrasted, that comply with the most rigorous requirements established for their use.

ATARFIL HD contains 97,5% of pure polymer, and approximately 2,5% of Carbon Black, antioxidants and thermal stabilizers. The product does not contain plasticizers or fillers that can migrate over time.

The geomembrane **ATARFIL HD** is manufactured under permanent quality controls.

Surface	Smooth	Colour	Black
		RAL Code	-

	Tested Property	Unit	Test Method	Value
Raw Material Identification	Density of Raw Material	g/cm ³	UNE EN ISO 1183-1	≥ 0,932
	Density of Geomembrane	g/cm ³	UNE EN ISO 1183-1	0,946 ± 0.004
	Melt Flow Index	g/10 min	UNE EN ISO 1133 D Condition (190°C/2,16 Kg)	≤ 0,40
			UNE EN ISO 1133 T Condition (190°C/5 Kg)	≤ 1,30
Carbon Black Content	%	ASTM D 4218	2,0 - 2,5	
Durability	Oxidative Induction Time (OIT)	min	UNE EN 728 (200°C)	> 100
	Stress Crack Resistance/NCTL	h	ASTM D 5397	≥ 400
	Oxidation	%	UNE EN 14575	≤ 15

	Tested Property	Unit	Test Method	Value
Functional Properties	Low Temperature Brittleness (t*: -40°C)	-	UNE EN 495-5	No cracks
	Water Permeability	m ³ /m ² .day	UNE EN 14150	< 1·10 ⁻⁶
	Coefficient of Linear Thermal Expansion	1/K	ASTM D 696	2,15·10 ⁻⁴
	Water Absorption	%	UNE EN ISO 62 (24h)	≤ 0,1
			UNE EN ISO 62 (6 days)	≤ 0,1
	Thickness of Coextruded Layer	%	UNE EN 1849-2	-
Asperity Height	mm	ASTM D 7466	-	

	Tested Property	Unit	Test Method	Value					
Strength Characteristics Quality of Final Product	Thickness	mm	UNE EN 1849-2	1.00	1.50	2.00	2.50	3.00	
	Tolerance	%	-	-10					
	Tensile Properties¹								
	Tensile strength at Yield	N/mm	UNE-EN ISO 527 (Type 5)	17 (16)	25 (24)	34 (32)	43 (40)	52 (48)	
	Elongation at Yield	%		12 (9)					
	Tensile strength at Break	N/mm		31 (26)	46 (39)	61 (52)	77 (65)	92 (78)	
	Elongation at Break	%		800 (700)					
	Tear Resistance	N	ISO 34-1	≥ 135	≥ 202	≥ 270	≥ 337	≥ 405	
	Puncture Resistance	KN	UNE-EN ISO 12236	2.8 (2.4)	4.0 (3.8)	5.0 (4.8)	6.0 (5.8)	6.3 (6.0)	
	Exploding Resistance	%	pr EN 14151	< 15					
Dimensional Stability	%	UNE EN ISO 14632 (100°C, 1h)	± 1,5						

	Parameter	Units	1,00	1,50	2,00	2,50	3,00	
21111	PRESENTATION (Standard Sizes)	Roll width	m	6/6,30/7,50*	6/6,30/7,50*	6/6,30/7,50*	6/6,30/7,50*	6/6,30/7,50*
		Roll Length	m	210	140	105	84	70
		Surface	m ²	1260/1323/1575	840/882/1050	630/661/787	504/529/630	420/441/525

(1) Values indicated are MEDIUM. In brackets values with 95% confidence level.

(2) Geomembrane manufactured in Dubai Plant.

This information is provided for reference purposes and is not intended as guarantee.

ATARFIL assumes no liability in connection with the use of this information or the final use of the product.