

JUNIFOL HDPE (smooth/smooth) - GEOMEMBRANE - GRI GM13								
			Thickness					
Characteristic	Test Method	Unit	0.75mm	1.0mm	1.5mm	2.0mm	2.5mm	3.0mm
Material Properties								
Material	DSC analysis		High Density Polyethylene (HDPE)					
Width		m	5.1	5.1 or 8.0				
Length		m	100	200	150	120	100	85
GRI-GM13 Properties								
Thickness (min. ave.) <small>Lowest individual of 10 values</small>	ASTM D 5199	mm	0.75 (-10%)	1.0 (-10%)	1.5 (-10%)	2.0 (-10%)	2.5 (-10%)	3.0 (-10%)
Density (min)	ASTM D 1505	g/cm ³	0.940					
Tensile Properties (min. ave.)	ASTM D 6693 type IV							
Yield Strength		kN/m	12.00	17.00	25.00	33.00	42.00	48.00
Break Strength		kN/m	24.00	30.00	45.00	58.00	75.00	85.00
Yield Elongation		%	12.00	12.00	12.00	12.00	12.00	12.00
Break Elongation		%	700.00	750.00	750.00	750.00	750.00	750.00
Tear Resistance (min. ave.)	ASTM D 1004	N	100	130	190	280	340	380
Puncture Resistance (min.ave.)	ASTM D 4833	N	250	350	550	700	850	1000
Stress Crack Resistance	ASTM D 5397	hr.	500	500	500	500	500	500
Carbon Black Content	ASTM D 4218/6370	%	2-3	2-3	2-3	2-3	2-3	2-3
Carbon Black Dispersion	ASTM D 5596	Category	min. 9 in Categories 1 or 2 and max. 1 in Category 3					
Oxidative Induction Time (OIT) (min. ave.)								
Standard OIT	ASTM D 3895	min.	100	100	100	100	100	100
High Pressure OIT	ASTM D 5885		-	400	400	400	400	400
Oven Aging at 85 °C	ASTM D 5721 ASTM D 3895 ASTM D 5885	%	55	55	55	55	55	55
Standard OIT (min. ave.) % retained after 90 days			-	80	80	80	80	80
High Pressure (min. ave.) % retained after 90 days	ASTM D 7238 ASTM D 5885	%	-	50	50	50	50	50
UV Resistance			-	50	50	50	50	50
High Pressure OIT (min. ave.) % retained after 1600 hours								



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