

GEO HD X – HDPE Smooth Geomembrane

Technical Data Sheet



HYMA PLASTIC
SINCE 1975

Hyma GEO HD X is a smooth high quality sheet, manufactured from pure HDPE virgin polymer, made for Geomembrane applications. GEO HD X contains 97-97.5% Polyethylene, 2-2.5% Carbon Black, and traces of antioxidants and heat stabilizers. This product is double-sided smooth.

Test Property	Unit	Test Method	Value (*)			
Nominal Thickness (1)	mil	ASTM D-5199	20	30	40	50
Density	g/cm ³	ASTM D-792	≥0.94	≥0.94	≥0.94	≥0.94
Strength at Yield (Both directions)	lb/in-width	ASTM D 6693 Type IV Dumbbell, 2 ipm G.L. 2.0 in G.L. 1.3 in	34	51	74	85
Elongation at Yield (Both directions)	%		12	12	12	12
Strength at Break (Both directions)	lb/in-width		57	85	114	142
Elongation at Break (Both directions)	%		700	700	700	700
Tear Resistance	lb	ASTM D-1004	14	17	22	29
Puncture Resistance	lb	ASTM D-4833	36	44	59	72
Carbon Black Content	%	ASTM D-1603	2-3	2-3	2-3	2-3
Carbon Black Dispersion (2)	Category	ASTM D-5596	1 or 2	1 or 2	1 or 2	1 or 2
Dimension Stability	%	ASTM D-1204 212°F – 1 Hr	±2	±2	±2	±2
Melt Flow Index	gm/10min	ASTM D-1238 374°C – 2.16 Kg	≤ 1	≤ 1	≤ 1	≤ 1
Roll Width (approx.) (3)	m	----	19 -23			
Roll Length (approx.) (3)	m	----	164 -246 - 328			
Surface	----	----	Double-sided Smooth			

(*) All Values unless stated otherwise are nominal values.

(1) Minimum average thickness = -10% of Nominal Thickness.

(2) Dispersion only applies to near spherical agglomerates. 9 of 10 views shall be category 1 or 2. No more than 1 view from category 3.

(3) Roll Width and Lengths have a tolerance of ±1%.

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Test Property	Unit	Test Method	Value (*)		
Thickness (1)	mil	ASTM D-5199	60	80	100
Density	g/cm ³	ASTM D-792	≥0.94	≥0.94	≥0.94
Strength at Yield (Both directions)	lb/in-width	ASTM D 6693 Type IV Dumbbell, 2 ipm G.L. 2.0 in G.L. 1.3 in	114	142	188
Elongation at Yield (Both directions)	%		12	12	12
Strength at Break (Both directions)	lb/in-width		194	240	308
Elongation at Break (Both directions)	%		700	700	700
Tear Resistance	lb	ASTM D-1004	37	47	57
Puncture Resistance	lb	ASTM D-4833	92	119	152
Carbon Black Content	%	ASTM D-1603	2-3	2-3	2-3
Carbon Black Dispersion (2)	Category	ASTM D-5596	1 or 2	1 or 2	1 or 2
Dimension Stability	%	ASTM D-1204 212°F – 1 Hr	±2	±2	±2
Melt Flow Index	gm/10min	ASTM D-1238 374°F – 2.16 Kg	≤ 1	≤ 1	≤ 1
Roll Width (approx.) (3)	ft	----	19 - 23		
Roll Length (approx.) (3)	ft	----	164 -246 - 328		
Surface	----	----	Double-sided Smooth		

(*) All Values unless stated otherwise are nominal values.

(1) Minimum average thickness = -10% of Nominal Thickness.

(2) Dispersion only applies to near spherical agglomerates. 9 of 10 views shall be category 1 or 2. No more than 1 view from category 3.

(3) Roll Width and Lengths have a tolerance of ±2%.

GEO HD X - HDPE Textured Geomembrane

Technical Data Sheet



HYMA PLASTIC
SINCE 1975

Hyma GEO HD X Textured Geomembrane is a high quality sheet, manufactured from pure HDPE virgin polymer, made for Geomembrane applications. GEO HD X Textured Geomembrane contains 97-97.5% Polyethylene and 2-2.5% Carbon Black, and traces of antioxidants and heat stabilizers.

This product is available as single textured or double textured forms.

Test Property	Unit	Test Method	Minimum Average Value (*)		
Thickness (1) (Lowest individual values)	mil	ASTM D-5994	40 -15%	60 -15%	80 -15%
Density	g/cm ³	ASTM D-792	≥0.94	≥0.94	≥0.94
Strength at Yield (Both directions)	lb/in- width	ASTM D 6693 Type IV Dumbbell, 2 ipm G.L. 2.0 in G.L. 1.3 in	63	97	125
Elongation at Yield (Both directions)	%		12	12	12
Strength at Break (Both directions)	lb/in- width		45	68	91
Elongation at Break (Both directions)	%		100	100	100
Tear Resistance	lb	ASTM D-1004	21	33	45
Puncture Resistance	lb	ASTM D-4833	45	67	90
Carbon Black Content	%	ASTM D-1603	2-3	2-3	2-3
Carbon Black Dispersion (2)	Category	ASTM D-5596	1 or 2	1 or 2	1 or 2
Dimension Stability	%	ASTM D-1204 212°F – 1 Hr	±2	±2	±2
Melt Flow Index	gm/10min	ASTM D-1238 374°F – 2.16 Kg	≤ 1	≤ 1	≤ 1
Roll Width (approx.) (3)	ft	----	19 - 23		
Roll Length (approx.) (3)	ft	----	164 -246 - 328		
Surface	----	----	Single or Double-sided Textured		

(*) All Values unless stated otherwise are nominal values.

(1) Minimum average thickness = -10% of the lowest individual values.

(2) Dispersion only applies to near spherical agglomerates. 9 of 10 views shall be category 1 or 2. No more than 1 view from category 3.

(3) Roll Width and Lengths have a tolerance of ±2%.