

GEO HT - High Temperature Geomembrane

Technical Data Sheet



HYMA PLASTIC
SINCE 1975

Hyma GEO HT Geomembranes are made of high quality virgin polyethylene which demonstrates excellent chemical resistance. GEO HT are designed with special high performance raw materials and additives in order to maintain mechanical & physical properties at temperatures up to 100 °C.

Test Property	Unit	Test Method	Value (*)			
Thickness (1)	mil	ASTM D-5199	60	80	100	120
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	125	171	211	257
Elongation at Yield (Both directions)	%		12	12	12	12
Strength at Break (Both directions)	lb/in-width		228	302	282	457
Elongation at Break (Both directions)	%		600	600	600	600
Tear Resistance	lb	ASTM D-1004	43	56	71	84
Puncture Resistance	lb	ASTM D-4833	108	144	180	216
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
Oxidative Induction Time (OIT)	Min.	ASTM D-3895 392°F, O ₂ , 1atm.	≥ 160	≥ 160	≥ 160	≥ 160
High Pressure Oxidative induction Time (HPOIT)	Min.	ASTM D-5885 302°F, 3.4MPa	≥ 400	≥ 400	≥ 400	≥ 400
Tensile Properties @212°F Strength at Yield Elastic Modulus	psi	ASTM D 6693 Type IV	≥725 ≥ 5500	≥725 ≥ 5500	≥725 ≥ 5500	≥725 ≥ 5500
212°F Oven Aging Standard HPOIT retained after 90 Days	%	ASTM D-5721/ D5885 (modified)	≥ 90	≥ 90	≥ 90	≥ 90
Stress Crack Resistance @176°F	H	ASTM D-5397 (modified)	≥ 500	≥ 500	≥ 500	≥ 500
UV Resistance HPOIT (3) Retained after 1600 Hours	%	ASTM D-7238 ASTM D-5885	≥ 80	≥ 80	≥ 80	≥ 80
Roll Width (approx.) (4)	ft	----	19 -23			
Roll Length (approx.) (4)	ft	----	164 -246 - 328			
Surface	----	----	Double-sided Smooth			

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

(1) Tolerance ±10% of the 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) Test-Conditions: 20 hours UV cycle at 75°C followed by 4 hours condensation at 60°C.

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