



HUITEX HD Series – Smooth High Density Polyethylene Geomembrane Data sheet

HUITEX HD Series geomembrane is made of premium virgin HDPE resin designed specifically for geomembrane production along with adequate carbon black, antioxidant, and stabilizers to have superior mechanical properties and outstanding long-term resistance to aggressive chemical, environmental stress crack, and UV radiation.

		Minimum Values						
Property	Test Method	HD050	HD075	HD100	HD150	HD200	HD250	HD300
Thickness, mm	ASTM D5199							
Minimum Average Values		0.50	0.75	1.00	1.50	2.00	2.50	3.00
Lowest Individual Reading		0.45	0.67	0.90	1.35	1.80	2.30	2.70
Density, g/cm ³	ASTM 1505/D792	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Tensile Properties (each direction)	ASTM D6693 Type IV specimen							
1.Strength at Yield, kN/m width	@ 50 mm/min	9	11	16	25	34	40	44
2.Strength at Break, kN/m width		14	21	28	43	57	71	80
3.Elongation at Yield, %	G.L. 33 mm	13	13	13	13	13	13	13
4.Elongation at Break, %	G.L. 51 mm	700	700	700	700	700	700	700
Tear Resistance, N	ASTM D1004	73	100	138	210	275	330	374
Puncture Resistance, N	ASTM D4833	176	264	352	530	705	890	1060
Carbon Black Content, %	ASTM D1603	2	2	2	2	2	2	2
Carbon Black Dispersion	ASTM D5596	Cat.2	Cat.2	Cat.2	Cat.2	Cat.2	Cat.2	Cat.2
Oxidative Induction Time, min	ASTM D 3895 (200 ; O ₂ , 1 atm)	100	100	100	100	100	100	100

		Nominal Values						
Tensile Properties (each direction)	ASTM D638 Type IV specimen							
1.Strength at Yield, kN/m width	@ 50 mm/min	10	15	21	32	38	49	58
2.Strength at Break, kN/m width		18	27	36	53	70	90	107
3.Elongation at Yield, %	G.L. 33 mm	17	17	17	17	17	17	17
4.Elongation at Break, %	G.L. 51 mm	800	800	800	800	800	800	800
Melt Flow Index, g/10 min	ASTM D1238 (190 ; 2.16kg)	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Tear Resistance, N	ASTM D1004	87	135	160	245	330	420	480
Puncture Resistance, N	ASTM D4833	245	365	490	690	850	965	1200
Carbon Black Content, %	ASTM D1603	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Carbon Black Dispersion	ASTM D5596	Cat.1	Cat.1	Cat.1	Cat.1	Cat.1	Cat.1	Cat.1
Dimensional Stability, %	ASTM D1204 (100 ; 1 hour)	±1	±1	±1	±1	±1	±1	±1
Low Temperature Brittleness,	ASTM D746	< -77	< -77	< -77	< -77	< -77	< -77	< -77
Stress Crack Resistance, hrs	ASTM 5397 (Appendix)	> 400	> 400	> 400	> 400	> 400	> 400	> 400

		Roll Dimensions						
Width, m		7	7	7	7	7	7	7
Length, m		420	280	210	140	105	84	70
Area, m ²		2940	1960	1470	980	735	588	490
Net Weight, kg (Approx.)		1397	1397	1397	1397	1397	1397	1397
40' container, rolls		16	16	16	16	16	16	16

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