Rowad International Geosynthetics Co. Ltd.

PRODUCT TECHNICAL DATA SHEET-ETEX

ROWAD HDPE DOUBLE ENHANCED TEXTURED BLACK (HDE)(ETEX):

ROWAD HDPE Geomembranes are produced from prime quality, high molecular weight resins and are specially designed for most containment and environmental protection applications. The finished product has exceptional mechanical and chemical resistance properties, is highly durable with excellent aging, UV resistance and Environmental Stress Crack Resistance properties making it very suitable for most exposed applications. ROWAD Geomembranes are produced with virgin resins and DO NOT contains any fillers, foreign additives or plasticizing agents.

The ROWAD Geomembrane specification shown below meets or exceeds GRI GM 13 Standards.

Tested Properties	Test Method	Frequency	HD-ETEX150	HD-ETEX200	HD-ETEX250	HD-ETEX300
Thickness, (nominal) mm	ASTM D 5994	Per Roll	1.50	2.00	2.50	3.00
Thickness, (min. ave) mm			1.43	1.90	2.37	2.85
Lowest individual for 8 out of 10 values			1.35	1.80	2.25	2.70
Lowest individual of 10 values			1.28	1.70	2.13	2.55
Asperity Height[1] (ave) mm	ASTM D7466	Per Roll	≥0.90	≥0.90	≥0.90	≥0.90
Density(min ave), g/cm^3	ASTM D 792/1505	90,000 Kgs	0.940	0.940	0.940	0.940
Tensile Properties , (min. ave)	ASTM D 6693,	9,000 Kgs				
Strength at Yield , N/mm	Type IV		22	29	37	44
Strength at Break, N/mm	50mm /min		16	21	26	32
Elongation at Yield, %	G.L. = 33 mm		12	12	12	12
Elongation at Break, %	G.L. = 50 mm		100	100	100	100
Tear Resistance,(min ave) N	ASTM D 1004	9,000 Kgs	187	249	311	374
Puncture Resistance,(min ave) N	ASTM D 4833	9,000 Kgs	440	534	667	800
Carbon Black Content, (range) %	ASTM D1603/4218	9,000 Kgs	2.0-3.0	2.0-3.0	2.0-3.0	2.0-3.0
Carbon Black Dispersion[2]	ASTM D 5596	9,000 Kgs	Cat1,2or3	Cat1,2or3	Cat1,2or3	Cat1,2or3
Notched Constant Tensile Load, hrs	ASTM D 5397	Per GRIGM10	500	500	500	500
Oxidative Induction Time, mins Standard OIT	ASTM D 3895	90,000 Kgs	100	100	100	100
Oven Aging at 85°C HP OIT % retained after 90 days	ASTM D 5721 ASTM D 5885	Per formulation	>80	>80	>80	>80
UV Resistance HP OIT % retained after 1600 hrs	GM 11 ASTM D 5885	Per formulation	>50	>50	>50	>50
Standard Roll Dimensions						
Width(m) FD	RTM	Per Roll	8	8	8	8
Length(m) FD	RTM	Per Roll	90	70	50	40
Area (m^2) FD	RTM	Per Roll	720	560	400	320

NOTES:

1: Carbon black Dispersion only applies to near spherical agglomerates. 10 of 10 views in Category 1 or 2.
2: Testing frequencies are rounded the nearest full roll.
3: Roll lengths & widths have a tolerance of ±1%.
4: NCTL/OIT Results For Smooth and Textured materials are taken from SMOOTH Section/Selvedge of the Role & All 3rd Party Tests must be taken from this section only.
5. Where offered- Conductive layers will be complete across the bottom of each role. (Standard Conductive will be BF or FD while Premium conductive will be BF only).
6. For reference; BF= Blown Film, FD= Flat Die.
7. Where offered single Textured rolls will be located on the upper face Unless otherwise agreed.

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International Geosynthetics Society

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