Formosa Plastics®

Formolene® HDPE

Formolene® HL3812

Medium Density Polyethylene Resin For Blown Film Extrusion Applications

Formolene® HL3812 is a high molecular weight hexene copolymer resin that is tailored specifically for geomembrane applications. The resin provides an excellent balance of ESCR properties, broad fusion range, excellent melt strength and good overall process-ability.

Suggested Applications: Landfill Liners, Gasoline and Chemical Tank Containment Liners, Tunnel Moisture Barriers, Mine Tailing Collection Projects

Nominal Physical Properties:

PROPERTY*	ASTM TEST METHOD	English UNIT	English VALUE	SI UNIT	SI VALUE
Density	D1505	g/cc	0.938	g/cc	0.938
Melt Index, Condition E,					
190ºC/2.16 kg	D1238	g/10 min.	0.08	g/10 min.	0.08
190ºC/21.6 kg (HLMI)	D1238	g/10 min.	12.0	g/10 min.	12.0
Tensile Yield Strength					
2 in. per min., Type IV bar	D638	psi.	2,600	MPa	18
Elongation at Break					
2 in. per min., Type IV bar	D638	%	850	%	850
Flexural Modulus, Tangent -					
16:1 span:depth, 0.5 in./min.	D790	psi.	120,000	MPa	830
ESCR					
Condition B, (10% Igepal)F_{50}	D1693	h	>1,500	h	>1,500
Condition C, (100% Igepal) F_{50}	D1693	h	>1,500	h	>1,500
SP-NCTL	D5397	h	>900	h	>900
Durometer Hardness,					
Type D (Shore D)	D2240	Shore D	65	Shore	65
Vicat Softening Temperature,					
Loading 1, Rate A	D648	°F	243	°C	117
Heat Deflection Temperature,					
66 psi., Method A	D648	°F	138	°C	59
Brittleness Temperature,					
Type A, Type I specimen	D746	°F	<-103	°C	<-75
Tensile Impact					
Type S Bar	D1822	Ft-lb/in^2	240	KJ/m^2	500

* Physical properties reported herein were determined on compression molded specimens prepared in accordance with Procedure C of ASTM D4703, Annex A1.

The nominal properties reported herein are typical of the product but do not reflect normal testing variance and therefore should not be used for specification purposes.

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Any inquiries regarding this data sheet should be addressed to: 9 Peach Tree Hill Road • Livingston, NJ 07039 • Phone: (888) FPCUSA3