Formosa Plastics®

Formolene® HDPE

Formolene® HP4525

High Density Polyethylene for Non-pressure Pipe and Blow Molding Applications

Formolene® HP4525 is a high-performance copolymer designed for non-pressure pipe and blow molding applications. It has good long-term hoop strength performance, excellent ESCR, and outstanding toughness even at low temperatures. Overall, it provides an excellent balance of stiffness, and process ability in conduit pipe and blow mold applications.

Formolene® HP4525 meets the requirements of ASTM F2160, UL651A and NEMA TC-7. HP4525 also meets a minimum ASTM D3350 Cell Classification of 335440A.

Suggested Applications:

Conduit Pipe, Telecommunications Pipe, Drip Irrigation Pipe

Industrial Blow Molding Products

Nominal Physical Properties:

PROPERTY*	ASTM TEST METHOD	English UNIT	English VALUE	SI UNIT	SI VALUE
Density	D1505	g/cc	0.948	g/cc	0.948
Melt Index,					
Condition E, 190ºC/2.16 kg (MI)	D1238	g/10 min.	0.30	g/10 min.	0.30
Condition F, 190ºC/21.6 kg (HLMI)		g/10 min.	20.0	g/10 min.	20.0
Tensile Strength at Yield,					
2 in./min, Type IV bar	D638	psi.	3500	MPa	25
Elongation at Break,					
2 in./min, Type IV bar	D638	%	>600	%	>600
Flexural Modulus					
2% Secant	D790	psi.	130,000	MPa	896
Environmental Stress Crack Resistance					
Condition B, (100% Igepal), F50	D1693	h	>1000	h	>1000
Condition B, (10% Igepal), F10/F50		h	>200	h	>200
Condition C, (100% Igepal), F20/F50		h	>1000	h	>1000
Brittleness Temperature	D746	°F	-175	°C	-115
Heat Deflection Temperature @ 66 psi	D648	°F	151	°C	66
Vicat Softening Point	D1525	°F	257	°C	125
Hardness (Shore D)	D2240	-	68	-	68

* 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.

Published 06/01/01, Revised 04/22/22

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