



Formosa Plastics®

Formolene® HDPE

Formolene® HP4000

High Density Polyethylene for Pipe Non-Pressure Pipe Extrusion Applications

Formolene® HP4000 is a high performance copolymer that is designed for the most demanding requirements of non-pressure pipe applications. It has good long-term hoop strength performance, very high melt strength, and outstanding toughness even at low temperatures.

Formolene® HP4000 meets all requirements of ASTM D4976 – PE 235

Formolene® HP4000 meets the requirements of ASTM F 2160 and UL651A for use in solid wall HDPE conduit pipe.

Suggested Applications:

Telecommunications Conduit
Non-Pressure Pipe Applications

Nominal Physical Properties:

PROPERTY*	ASTM TEST METHOD	English		SI	
		UNIT	VALUE	UNIT	VALUE
Density	D1505	g/cc	0.944	g/cc	0.944
Melt Index, Condition E, 190°C/2.16 kg	D1238	g/10 min	0.14	g/10 min	0.14
Environmental Stress Crack Resistance (ESCR) Condition A, B, C (100% Igepal) F ₅₀	D1693	h	>1000	h	>1000
Tensile Yield Strength @ Yield	D638	psi.	3200	MPa	22
@ Break	Type IV	psi.	5000	MPa	34
2" (50 mm) per min. Ultimate Elongation	D638	%	>500	%	>500
2" (50 mm) per min. Flexural Modulus	D3350	psi.	110,000	MPa	760
	D790	psi.	140,000	MPa	960
Brittleness Temperature	D746	°F	<-130	°C	<-90

* 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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