



Formosa Plastics®

Formolene® HDPE

Formolene® E4803

High Density Polyethylene Non-pressure Pipe Extrusion Resin

Formolene® E4803 is a bimodal high-performance copolymer designed for non-pressure pipe applications. It has outstanding toughness even at low temperatures. Overall, it provides an excellent balance of stiffness, and process ability in conduit pipe applications.

Formolene® E4803 meets the material requirements of ASTM F2160 and also meets the minimum requirements of ASTM D3350-21 cell classification 435480A and 435440A.

Formolene® E4803 meets all requirements of the U.S. Food and Drug Administration as specified in 21 CFR 177.1520, covering safe use of polyolefin articles intended for direct food contact.

Suggested Applications:

Conduit Pipe, Telecommunications Pipe

Caps and Closures, Blow Molded Parts, Sheet, Thermoformed Parts

Nominal Physical Properties:

PROPERTY*	ASTM TEST METHOD	English		SI	
		UNIT	VALUE	UNIT	VALUE
Density	D1505	g/cc	0.948	g/cc	0.948
Melt Index					
Condition E, 190°C/2.16 kg (MI)	D1238	g/10 min.	0.30	g/10 min.	0.30
Condition F, 190°C/21.6 kg (HLMI)		g/10 min.	30.0	g/10 min.	30.0
Tensile Strength at Yield, 2 in./min, Type IV bar	D638	psi.	3400	MPa	23.4
Elongation at Break, 2 in./min, Type IV bar	D638	%	>600	%	>600
Flexural Modulus 2% Secant	D790	psi.	128,000	MPa	883
Environmental Stress Crack Resistance					
Condition B, (100% Igepal), F50	D1693	h	>1000	h	>1000
Condition B, (10% Igepal), F10	D1693	h	>1000	h	>1000
Condition C, (100% Igepal), F20	D1693	h	>1000	h	>1000
NCLS, 600 psi	F2136	h	>200	h	>200
Brittleness Temperature	D746	°F	< -76	°C	< -60
Thermal Stability	D3350	°F	>428	°C	>220
OIT, 200°C	D3895	min.	>60	min.	>60

* 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

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