



Formolene® HL5010

Formosa Plastics Corporation, U.S.A. - Ultra High Molecular Weight Polyethylene

Tuesday, November 5, 2019

General Information

Product Description

Formolene® HL5010 has good melt strength, excellent stress crack resistance, good rigidity, and excellent impact strength even at low temperatures. These properties make Formolene® HL5010 an excellent resin for large part blow molding applications.

Formolene® HL5010 meets the requirements of the U.S. Food and Drug Administration as specified in 21 CFR 177.1520 for food packaging, covering safe use of polyolefin articles intended for direct food contact.

General

Material Status	• Commercial: Active		
Availability	• North America		
Features	• Food Contact Acceptable • Good Melt Strength • Hexene Comonomer	• High ESCR (Stress Crack Resist.) • High Impact Resistance • High Rigidity	• Low Temperature Impact Resistance • Ultra High Molecular Weight
Uses	• Agricultural Applications • Blow Molding Applications • Conduit • Corrugated Pipe	• Fuel Tanks • Industrial Containers • Industrial Parts • Non-specific Food Applications	• Pallets • Sheet • Tanks • Water Sports Equipment
Agency Ratings	• EC 1907/2006 (REACH) • FDA 21 CFR 177.1520		
Forms	• Pellets		
Processing Method	• Blow Molding	• Extrusion	

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	0.949	g/cm ³	ASTM D1505
Melt Mass-Flow Rate (190°C/21.6 kg)	10	g/10 min	ASTM D1238
Environmental Stress-Cracking Resistance (ESCR)			ASTM D1693B
10% Igepal, Compression Molded, F50		> 600 hr	
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength ² (Yield, Compression Molded)	3630	psi	ASTM D638
Tensile Elongation ² (Break, Compression Molded)	> 600	%	ASTM D638
Flexural Modulus (Compression Molded)	170000	psi	ASTM D790
Thermal	Nominal Value	Unit	Test Method
Brittleness Temperature	< -132	°F	ASTM D746

Notes

¹ Typical properties: these are not to be construed as specifications.

² Type IV, 2.0 in/min

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