KPOL-HDPE HD K-0.35/955

High Density Polyethylene

KPOL Chem Co.

Message:

High Density Polyethylene Copolymer 1-hexene Extrusion-Blow Molding
Applications
Bottles for home use chemical liquid substances (bleache) and industrial chemicals (lubricants) up to 10 litters.
Bottles containing liquids for personal use (shampoo). Bottles for pharmaceutical products.
Characterisitics
The KPOL® resin meets the requirements of section 177.1520, paragraph C, from chapter 21 denominated "Olefin Polymers" from the Code of Federal Regulations of the FDA, to be utilized with direct food contact.

General Information	
Additive	Antioxidant
Features	Antioxidant Copolymer Food Contact Acceptable Hexene Comonomer High Density
Uses	Bottles
Agency Ratings	FDA 21 CFR 177.1520
Forms	Pellets
Processing Method	Extrusion Blow Molding

Physical	Nominal Value	Unit	Test Method
Density	0.955	g/cm³	ASTM D1505
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	0.35	g/10 min	ASTM D1238
Environmental Stress-Cracking Resistance			
Condition B, 60°C, 10% Igepal CO-630, F50 [1]	> 500	hr	ASTM D2561
50°C, 3.18 mm, 100% Igepal CO-630, F50 [2]	45.0	hr	ASTM D1693A
50°C, 1.91 mm, 100% Igepal CO-630, F50 [3]	35.0	hr	ASTM D1693B

Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore D, 1 sec, 23°C)	67		ASTM D2240

Mechanical	Nominal Value	Unit	Test Method
Tensile Strength [4] (Yield)	27.6	MPa	ASTM D638
Tensile Elongation [5] (Break)	600	%	ASTM D638
Flexural Modulus - Tangent [6] (3.20 mm)	1380	MPa	ASTM D790

Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (3.20 mm)	270	J/m	ASTM D256A

Tensile Impact Strength	242	kJ/m²	ASTM D1822
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load (0.45 MPa, Unannealed)	76.0	°C	ASTM D648
Brittleness Temperature [7]	< -75.0	°C	ASTM D746A
Vicat Softening Temperature	127	°C	ASTM D1525 [8]
Melting Temperature	129	°C	DSC

NOTE	
1.	16 oz cylindrical bottle (approximated mass of 20 g) filled up to 33% of its capacity
2.	Grooved Specimen
3.	Grooved Specimen
4.	Type IV, 50 mm/min
5.	Type IV, 50 mm/min
6.	13 mm/min
7.	F50; 25 lbfXin
8.	Rate A (50°C/h), Loading 1 (10 N)

Recommended distributors for this material

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