DOWLEX[™] IP 40

Polyethylene Resin

The Dow Chemical Company

Message:

High Density Polyethylene Resin (HDPE) For food container applications Excellent processability and impact resistance Complies with U.S. FDA 21 CFR 177.1520 (c) 3.2a Complies with Canadian HPFB No Objection (With Limitations)

Consult the regulations for complete details.

DOWLEX[™] IP 40 Polyethyelne Resin is an Improved Processing high density resin designed to offer the excellent processing and impact resistance required for food container applications. This resin was designed by optimizing the breadth, shape and peak molecular weight, and has demonstrated both excellent impact and processability over a wide range of conditions.

General Information					
Agency Ratings	FDA 21 CFR 177.1520(c) 3.2a				
	HPFB (Canada) No Object	HPFB (Canada) No Objection 2			
Forms	Particle	Particle			
Processing Method	Injection molding	Injection molding			
Multi-Point Data	Viscosity vs. Shear Rate (A	Viscosity vs. Shear Rate (ASTM D3835)			
Physical	Nominal Value	Unit	Test Method		
Specific Gravity	0.952	g/cm³	ASTM D792		
Melt Mass-Flow Rate (MFR) (190°C/2.1					
kg)	40	g/10 min	ASTM D1238		
Hardness	Nominal Value	Unit	Test Method		
Durometer Hardness (Shore D)	56		ASTM D2240		
Mechanical	Nominal Value	Unit	Test Method		
Tensile Strength			ASTM D638		
Yield	25.5	MPa	ASTM D638		
Fracture	26.9	MPa	ASTM D638		
Tensile Elongation			ASTM D638		
Yield	3.0	%	ASTM D638		
Fracture	10	%	ASTM D638		
Flexural Modulus - 2% Secant	1000	MPa	ASTM D790B		
Impact	Nominal Value	Unit	Test Method		
Tensile Impact Strength ¹	84.1	kJ/m²	ASTM D1822		
Thermal	Nominal Value	Unit	Test Method		
Deflection Temperature Under Load (0. MPa, Unannealed)	45 68.9	°C	ASTM D648		
		°C			
Brittleness Temperature	< -76.1		ASTM D746		
Vicat Softening Temperature	124	°C	ASTM D1525		
Melting Temperature (DSC)	128	°C	Internal method		

Peak Crystallization Temperature (DSC)	117	°C	Internal method
Additional Information			
NOTE			
1.	Type s		

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Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

