SureSpec HD53-3000

High Density Polyethylene

Genesis Polymers

Message:

HD53-3000 is a Hexene copolymer certified prime grade designed for injection molding General Purpose thin-wall applications requiring good balance of properties. HD53-3000 features high flow, fast cycling, easy processability, good impact strength and dimensional stability. HD53-3000 recommended processing temperature is 210 to 230°C. with mold @ 20 to 40°C. HD53-3000 complies with FDA regulation 21CFR 177.1520(c) 3.1a + 3.2a and with most international regulations concerning the use of Polyethylene in contact with food articles.

General Information				
Features	Copolymer			
	Fast Molding Cycle			
	Food Contact Acceptable			
	General Purpose			
	Good Dimensional Stability			
	Good Impact Resistance			
	Good Processability			
	Hexene Comonomer			
	High Density			
	High Flow			
Uses	General Purpose			
0303	Thin-walled Parts			
	min-wailed raits			
Agency Ratings	FDA 21 CFR 177.1520(c) 3.1a			
	FDA 21 CFR 177.1520(c) 3.2a			
Forms	Pellets			
Processing Method	Injection Molding			
Physical	Nominal Value	Unit	Test Method	
Density	0.952	g/cm³	ASTM D1505	
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	30	g/10 min	ASTM D1238	
Environmental Stress-Cracking Resistance				
1	< 10.0	hr	ASTM D1693B	
Mechanical	Nominal Value	Unit	Test Method	
Tensile Strength ² (Yield)	23.4	MPa	ASTM D638	
Tensile Elongation ³ (Break)	200	%	ASTM D638	
Flexural Modulus ⁴	1000	MPa	ASTM D790	
Thermal	Nominal Value	Unit	Test Method	
Deflection Temperature Under Load (0.45 MPa, Unannealed)	73.0	°C	ASTM D648	

Brittleness Temperature	< -50.0	°C	ASTM D746
Vicat Softening Temperature	120	°C	ASTM D1525
Injection	Nominal Value	Unit	
Processing (Melt) Temp	210 to 230	°C	
Mold Temperature	20.0 to 40.0	°C	
NOTE			
1.	Notched Bent Strip		
2.	50 mm/min		
3.	50 mm/min		
4.	1.3 mm/min		

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