# SureSpec HD53-7000

### High Density Polyethylene

#### **Genesis Polymers**

#### Message:

HD53-7000 is a certified prime grade designed for injection molding of multi-cavity thin-wall food containers. HD53-7000 features a NARROW molecular weight distribution offering excellent processability, good impact strength, good dimensional stability and good warpage resistance. HD53-7000 recommended processing temperature is 210 to 230°C.with mold @ 20 to 40°C. HD53-7000 complies with FDR regulation 21CFR 177.1520(c) 3.1a and most international regulations concerning the use of Polyethylene in contact with food articles.

General Information				
Features	Good dimensional stability			
	High density			
	Bending resistance			
	Impact resistance, good			
	Workability, good			
	Compliance of Food Exposure			
	Narrow molecular weight distribution			
Uses	Thin wall container			
	Food container			
Agency Ratings	FDA 21 CFR 177.1520(c) 3.1a			
Forms	Particle			
Processing Method	Injection molding			
Physical	Nominal Value	Unit	Test Method	
Density	0.953	g/cm³	ASTM D1505	
Melt Mass-Flow Rate (MFR) (190°C/2.16				
kg)	70	g/10 min	ASTM D1238	
Mechanical	Nominal Value	Unit	Test Method	
Tensile Strength <sup>1</sup> (Yield)	20.7	MPa	ASTM D638	
Tensile Elongation <sup>2</sup> (Break)	10	%	ASTM D638	
Flexural Modulus - 2% Secant	1030	MPa	ASTM D790	
Impact	Nominal Value	Unit	Test Method	
Tensile Impact Strength	84.1	kJ/m²	ASTM D1822	
Thermal	Nominal Value	Unit	Test Method	
Deflection Temperature Under Load (0.45 MPa, Unannealed)	69.0	°C	ASTM D648	
Additional Information				
Test Made on injection molded Type 1 tens	ion test specimen according to ASTM	D2146		
Injection	Nominal Value	Unit		
Processing (Melt) Temp	210 - 230	°C		
Mold Temperature	20.0 - 40.0	°C		

NOTE	
1.	50 mm/min
2.	50 mm/min

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#### Recommended distributors for this material

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