

# SureSpec HD52-700

High Density Polyethylene

Genesis Polymers

## Message:

HD52-700 is a certified prime copolymer designed for injection molding applications requiring good balance of mechanical properties. HD52-700 features easy processability, good stiffness, good impact strength, high warpage resistance and excellent dimensional stability and is suitable for handling materials where resistance to low temperature impact and toughness is required. HD52-700 is not UV stabilized. Recommended processing temperature is 210 to 250°C. with mold @ 20 to 40°C. HD52-700 complies with FDA regulation 21CFR 177.1520 (c) 3.1 (a) + 3.2 (a) and with most international regulations concerning the use of Polyethylene in contact with food articles.

General Information			
Features	Good dimensional stability		
	Low Temperature Flexibility		
	Rigid, good		
	High density		
	Copolymer		
	Bending resistance		
	Impact resistance, good		
	Workability, good		
	Low temperature impact resistance		
	Compliance of Food Exposure		
Agency Ratings	FDA 21 CFR 177.1520(c) 3.1a		
	FDA 21 CFR 177.1520(c) 3.2a		
Forms	Particle		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Density	0.952	g/cm <sup>3</sup>	ASTM D1505
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	7.0	g/10 min	ASTM D1238
Environmental Stress-Cracking Resistance (50°C, molded, F50)	10.0	hr	ASTM D1693B
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength <sup>1</sup> (Yield)	27.6	MPa	ASTM D638
Tensile Elongation <sup>2</sup> (Break)	1000	%	ASTM D638
Flexural Modulus <sup>3</sup>	1100	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Tensile Impact Strength	56.7	kJ/m <sup>2</sup>	ASTM D1822
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (0.45 MPa, Unannealed)	75.0	°C	ASTM D648

#### Additional Information

Test Made on injection molded Type 1 tension test specimen according to ASTM D2146

Injection	Nominal Value	Unit
Processing (Melt) Temp	210 - 250	°C
Mold Temperature	20.0 - 40.0	°C

#### NOTE

1.	50 mm/min
2.	50 mm/min
3.	1.3 mm/min

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#### Recommended distributors for this material

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