# SureSpec HD54-05

### High Density (HMW) Polyethylene

#### **Genesis Polymers**

#### Message:

HD54-05 is a High Molecular Weight Hexene certified prime copolymer developed for blow molding of high performance medium to large size industrial containers. HD54-05 features High-Swell, consistent processability, outstanding combination of ESCR, Impact strength, Stiffness, Creep resistance, and excellent chemical resistance. HD54-05 recommended processing temperature is 210 to 230°C.. HD54-05 complies with FDA regulation 21CFR 177.1520 (c) 3.2 (a) and with most international regulations concerning the use of Polyethylene in contact with food articles.

General Information				
Features	Rigid, good			
	High ESCR (Stress Cracking Resistance)			
	High molecular weight			
	High density			
	Copolymer			
	hexene comonomer			
	Impact resistance, good			
	Good creep resistance			
	Good chemical resistance			
	Compliance of Food Exposure			
Uses	Industrial container			
Agency Ratings	FDA 21 CFR 177.1520(c) 3.2a			
Forms	Particle			
Processing Method	Blow molding			
Physical	Nominal Value	Unit	Test Method	
Density	0.954	g/cm³	ASTM D1505	
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	0.028	g/10 min	ASTM D1238	
Environmental Stress-Cracking Resistance (Compression Molded, F50)	> 1000	hr	ASTM D1693	
Mechanical	Nominal Value	Unit	Test Method	
Tensile Strength <sup>1</sup> (Yield)	26.0	MPa	ASTM D638	
Tensile Elongation <sup>2</sup> (Break)	800	%	ASTM D638	
Flexural Modulus <sup>3</sup>	1170	MPa	ASTM D790	
Impact	Nominal Value	Unit	Test Method	
Tensile Impact Strength	380	kJ/m²	ASTM D1822	
Thermal	Nominal Value	Unit	Test Method	
Deflection Temperature Under Load (1.8 MPa, Unannealed)	45.0	°C	ASTM D648	
Additional Information	Nominal Value	Unit		
Blow Molding Temperature	210 - 230	°C		

Test Made on injection molded Type 1 tension test specimen according to ASTM D2146			
NOTE			
1.	50 mm/min		
2.	50 mm/min		
3.	13 mm/min		

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#### Recommended distributors for this material

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