

INEOS HDPE HP50-25-153

High Density Polyethylene Copolymer
INEOS Olefins & Polymers USA

Technical Data

Product Description

HP50-25-153 is a high performance high density polyethylene copolymer developed for blow molding. It is recommended for use in applications requiring excellent environmental stress crack resistance (ESCR). HP50-25-153 is recommended for use in continuous extrusion blow molding equipment. This product contains an antistat and meets the Food and Drug Administration requirements of 21CFR 177.1520 See the Regulatory Position Statement (RPS) on our web site for more detailed information on regulatory compliance and substances of concern for this grade.

General

Material Status	• Commercial: Active		
Literature ¹	• Processing - Injection Molding (English) • Technical Datasheet (English)		
Search for UL Yellow Card	• INEOS Olefins & Polymers USA		
Availability	• North America		
Additive	• Antistatic		
Features	• Antistatic • Copolymer	• Food Contact Acceptable • High Density	• High ESCR (Stress Crack Resist.)
Uses	• Blow Molding Applications		
Agency Ratings	• FDA 21 CFR 177.1520		
RoHS Compliance	• Contact Manufacturer		
Forms	• Pellets		
Processing Method	• Blow Molding	• Extrusion Blow Molding	

Physical	Nominal Value Unit	Test Method
Density	0.951 g/cm ³	ASTM D4883
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	0.22 g/10 min	ASTM D1238
Mechanical	Nominal Value Unit	Test Method
Tensile Strength ³ (Yield)	25.5 MPa	ASTM D638
Tensile Elongation ³ (Break)	> 700 %	ASTM D638
Flexural Modulus		ASTM D790
2% Secant	931 MPa	
Tangent	1140 MPa	
Impact	Nominal Value Unit	Test Method
Notched Izod Impact	170 J/m	ASTM D256
Tensile Impact Strength	313 kJ/m ²	ASTM D1822
Hardness	Nominal Value Unit	Test Method
Durometer Hardness (Shore D)	64	ASTM D2240
Thermal	Nominal Value Unit	Test Method
Deflection Temperature Under Load		ASTM D648
0.45 MPa, Unannealed	71.0 °C	
Brittleness Temperature	< -75.0 °C	ASTM D746
Vicat Softening Temperature	129 °C	ASTM D1525

Notes

¹ These links provide you with access to supplier literature. We work hard to keep them up to date; however you may find the most current literature from the supplier.

² Typical properties: these are not to be construed as specifications.

³ 51 mm/min