

INEOS HDPE HP55-25-155

High Density Polyethylene
INEOS Olefins & Polymers USA

Technical Data

Product Description

HP55-25-155 is a high performance high density polyethylene copolymer developed for blow molding. It is recommended for use in continuous extrusion blow molding equipment, specifically where applications require excellent environmental stress crack resistance (ESCR). This material meets the Food and Drug Administration requirements of 21CFR 177.1520.

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	
Features	• 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	0.955 g/cm³	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)	27.6 MPa	ASTM D638
Tensile Elongation ³ (Break)	> 700 %	ASTM D638
Flexural Modulus		ASTM D790
2% Secant ⁴	1030 MPa	
Tangent	1260 MPa	

Impact	Nominal Value Unit	Test Method
Notched Izod Impact	110 J/m	ASTM D256
Tensile Impact Strength	233 kJ/m²	ASTM D1822

Hardness	Nominal Value Unit	Test Method
Durometer Hardness (Shore D)	65	ASTM D2240

Thermal	Nominal Value Unit	Test Method
Deflection Temperature Under Load		ASTM D648
0.45 MPa, Unannealed	74.0 °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

⁴ Method I (3 point load)