

INEOS HDPE B53-35H-011

High Density Polyethylene

INEOS Olefins & Polymers USA

Technical Data

Product Description

B53-35H-011 is a high density polyethylene copolymer developed for blow molding applications. This product is recommended for use in applications which require a combination of high top load strength and good 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)		
UL Yellow Card ²	• E31830-100062231		
Search for UL Yellow Card	• INEOS Olefins & Polymers USA		
Availability	• North America		
Features	• Copolymer • Food Contact Acceptable	• Good Strength • 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		

Physical	Nominal Value Unit	Test Method
Density	0.955 g/cm ³	ASTM D4883
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	0.35 g/10 min	ASTM D1238
Mechanical	Nominal Value Unit	Test Method
Tensile Modulus - Tangent	1500 MPa	ASTM D638
Tensile Strength ⁴ (Yield)	27.6 MPa	ASTM D638
Tensile Elongation ⁴ (Break)	> 700 %	ASTM D638
Apparent Bending Modulus	690 MPa	ASTM D747
Flexural Modulus - Tangent	1240 MPa	ASTM D790
Impact	Nominal Value Unit	Test Method
Notched Izod Impact	190 J/m	ASTM D256
Tensile Impact Strength	277 kJ/m ²	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 0.45 MPa, Unannealed	74.0 °C	ASTM D648
Brittleness Temperature	< -75.0 °C	ASTM D746
Vicat Softening Temperature	131 °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 A UL Yellow Card contains UL-verified flammability and electrical characteristics. UL IDES continually works to link Yellow Cards to individual plastic materials in Prospector, however this list may not include all of the appropriate links. It is important that you verify the association between these Yellow Cards and the plastic material found in Prospector. For a complete listing of Yellow Cards, visit the UL Yellow Card Search.

³ Typical properties: these are not to be construed as specifications.

⁴ 51 mm/min