

INEOS HDPE K54-05

High Density (HMW) Polyethylene
INEOS Olefins & Polymers USA

Technical Data

Product Description

K54-05 is a high molecular weight, high density polyethylene copolymer developed for large-part blow molding (drum market) where the finished product demands outstanding physical performance. This material combines excellent processability and environmental stress crack resistance (ESCR) with superior impact and other well-balanced end use properties. This resin meets the Food and Drug Administration requirements of 21CFR 177.1520 for contact with food and is Kosher certified.

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 • Good Impact Resistance	• Good Processability • High Density • High ESCR (Stress Crack Resist.)	• High Molecular Weight
Uses	• Blow Molding Applications	• Drums	
Agency Ratings	• FDA 21 CFR 177.1520		
RoHS Compliance	• Contact Manufacturer		
Forms	• Pellets		
Processing Method	• Blow Molding		

Physical	Nominal Value Unit	Test Method
Density	0.954 g/cm³	ASTM D4883
Melt Mass-Flow Rate (MFR) (190°C/21.6 kg)	5.0 g/10 min	ASTM D1238
Mechanical	Nominal Value Unit	Test Method
Tensile Strength ³ (Yield)	26.9 MPa	ASTM D638
Tensile Elongation ³ (Break)	900 %	ASTM D638
Flexural Modulus - Tangent	1240 MPa	ASTM D790
Impact	Nominal Value Unit	Test Method
Notched Izod Impact	850 J/m	ASTM D256
Hardness	Nominal Value Unit	Test Method
Durometer Hardness (Shore D)	64	ASTM D2240
Thermal	Nominal Value Unit	Test Method
Deflection Temperature Under Load 0.45 MPa, Unannealed	75.0 °C	ASTM D648
Brittleness Temperature	-75.0 °C	ASTM D746
Vicat Softening Temperature	132 °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