

INEOS HDPE K44-11-128

High Density (HMW) Polyethylene
INEOS Olefins & Polymers USA

Technical Data

Product Description

K44-11-128 is a high molecular weight, high density polyethylene copolymer intended for large part blow molding where the finished product demands outstanding physical performance and low color. This material combines excellent processability and environmental stress crack resistance (ESCR) with well-balanced end use properties. This resin 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	• Good Processability • High Density	• High ESCR (Stress Crack Resist.) • High Molecular Weight
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	0.947 g/cm³	ASTM D4883
Melt Mass-Flow Rate (MFR) (190°C/21.6 kg)	12 g/10 min	ASTM D1238
Mechanical	Nominal Value Unit	Test Method
Tensile Strength ³ (Yield)	23.8 MPa	ASTM D638
Tensile Elongation ³ (Break)	850 %	ASTM D638
Apparent Bending Modulus	579 MPa	ASTM D747
Flexural Modulus - 2% Secant ⁴	841 MPa	ASTM D790
Impact	Nominal Value Unit	Test Method
Notched Izod Impact	470 J/m	ASTM D256
Tensile Impact Strength	710 kJ/m²	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 0.45 MPa, Unannealed	67.0 °C	ASTM D648
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)