INEOS HDPE K50-10-136

High Density (HMW) Polyethylene

INEOS Olefins & Polymers USA

Technical Data

Product Description
K50-10-136 is a high molecular weight, high density polyethylene copolymer. This product was developed for blow molding automotive fuel tanks and other large parts, where the finished product demands outstanding physical performance. K50-10-136 combines excellent processability and environmental stress crack resistance (ESCR) with superior impact and other well-balanced end use properties.

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 • Good Impact Resistance	• Good Processability • High Density	• High ESCR (Stress Crack Resist.) • High Molecular Weight
Uses	• Automotive Applications	• Fuel Tanks	
RoHS Compliance	• Contact Manufacturer		
Forms	• Pellets		
Processing Method	• Blow Molding		

Physical	Nominal Value	Unit	Test Method
Density	0.950	g/cm³	ASTM D4883
Melt Mass-Flow Rate (MFR) (190°C/21.6 kg)	9.0	g/10 min	ASTM D1238
Environmental Stress-Cracking Resistance	> 500	hr	ASTM D1693A
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength [3] (Yield)	25.5	MPa	ASTM D638
Tensile Elongation [3] (Break)	800	%	ASTM D638
Flexural Modulus - Tangent	1140	MPa	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact	400	J/m	ASTM D256
Hardness	**Nominal Value**	**Unit**	**Test Method**
Durometer Hardness (Shore D)	63		ASTM D2240
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load			ASTM D648
0.45 MPa, Unannealed	72.0	°C	
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