HD 0853 MO

Technical Data Sheet

Polyethylene, High Density. Natural Grade

HIGH DENSITY POLYETHYLENE

Product Description

HD 0853 MO is a special high density polyethylene copolymer grade, intended for the injection moulding of screw caps. This grade also suitable for compression molding, blow molding and compression blow forming applications.
Grade offers outstanding balance of stiffness, toughness, environmental stress cracking resistance, and good processing performances.
HD 0853 MO is good solution for the production of closures for water, CSD and many other types of food and non-food caps and closures.
HD 0853 MO doesn't contain any mold release, torque release or slip additives.

Product Characteristics

Application	Caps & Closures. Small and Very Small Bottles. Multylayer Blown Film
Processing Method	Injection Molding. Compression Molding. Compression Blow Forming. Film Extrusion
Market	Consumer Products. Rigid Packaging. Flexible Packaging
Features	Good Toughness. High Density. High ESCR
	No Mold Release / Torque Release / Slip additives

Typical Properties	Nominal Value	Units	Test Method
Physical			
Melt flow rate (MFR) (190°C/2.16kg)	0.8	g/10 min	ISO 1133
Melt flow rate (MFR) (190°C/5.0kg)	2.6	g/10 min	ISO 1133
Density	953	kg/m³	ISO 1183
Mechanical			
Flexural Modulus	1250	MPa	ISO 178
Tensile Strenght at Yield	25	MPa	ISO 527-1-2
Elongation at Break	900	%	ISO 527-1-2
Thermal			
Vicat Softening Point	127	°C	ISO 306
Heat Deflection Temperature (0.45 MPa, Unannealed)	74	°C	ISO 75 B-1,-2
Chemical			
ESCR (BTT, F50 at 50°C, 100 %)	>1200	hour	ASTM D1693
ESCR (BTT, F50 at 50°C, 10 %)	>300	hour	ASTM D1693
Impact			
Notched IZOD Impact Strength	11	kJ/m²	ISO 180

Notes

These are experimental property values not to be construed as specification limits.

REACH

Polyethylene are exempted from registration under REACH. However, the corresponding monomers (used as raw materials for polymer production) and relevant additives have been registered. Please see related Declaration of Compliance for Plastic Food Contact Materials (DoC for PFCM).

Packaging

Polyethylene pellets is typically packed in polyethylene bags with net weight of 25kg each. 50 bags are stacked on a flat wooden pallet (dimensions: 1100mm x 1300mm x 150mm) with net weight of 1250kg per pallet that is stretch-hood film wrapped. Upon agreement with a customer PE pellet can be packed into big bag sized for 1000kg on wooden pallet (dimensions: 1140mm x 1140mm x 150mm) without stretch-hood film wrapping.

Storage

Polyethylene product packed in 25kg bags or 1000kg big bags stacked on wooden pallet shall be stored in enclosed dry place preventing from direct sunlight at least 1 meter far from heaters, at temperature min. -15°C / max. 35°C, relative humidity max. 80%. Prior to processing PE product bags shall be kept in production area for at least 12 hours.
PE shelf life is 60 months from the date of manufacture.