

HB0035

HIGH DENSITY POLYETHYLENE

DESCRIPTION

HB0035 is a high molecular weight high density polyethylene blow moulding grade combining blow moulding extrusion behavior and superior mechanical properties. Blow moulded items made from HB 0035 exhibit high impact strength and good stress cracking resistance and high stiffness. HB 0035 contains antioxidant to protect the polymer from degradation during processing.

HB 0035 is a highly crystalline, non-polar thermoplastic and has excellent chemical resistance and superb impact resistance at ambient conditions and even at cold temperatures.

TYPICAL APPLICATIONS

HB0035 is well suited for wide range of blow moulding applications due to its unique properties. These range from bottles for bleach, motor oil, toiletries, mild and distilled water. This grade is also used to make small containers (from 10 cc to 20 lit.).

TYPICAL PROPERTY VALUES

TYPICAL PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
POLYMER PROPERTIES			
MFI (190 °C /2.16 kg)	0.35	g/10 min	ASTM D 1238
Density	0.959	g/cm ³	ASTM D 1505
MECHANICAL PROPERTIES			
Izod impact strength	25 min	Kg.cm/cm	ASTM D 256
Tensile strength @ break	290 min	gr/cm ²	ASTM D 638
Elongation @ break	900 min	%	ASTM D 638
THERMAL PROPERTIES			
Melting point	130	°C	ASTM D 2117
Vicat softening point	126	°C	ASTM D 1525
OPTICAL PROPERTIES			
Yellow index	-5 max	--	ASTM D 1925
CHEMICAL/COMPOSITIONAL PROPERTIES			
Ash content	0.06 max	wt%	ASTM D 1063
Volatile matter	0.05 max	wt%	ASTM D 1960
OTHER PROPERTIES			
ESCR	15	hr	ASTM D 1693

The above data are typical laboratory average. They are intended to serve as guides only.

Processing Conditions

HB0035 can be processed in most types of blow moulding equipment including HDPE or LDPE extruders. It is suitable for producing hollow article in extrusion blow moulding process.

Single screw extruder with a barrel of 25D to 30D long, smooth walled grooved feed section and/ or with decompression, mixing and conveying sections with 20D to 25D screw length are typical extruders for blow moulding of containers. This arrangement minimizes thermal degradation of melt and provides a high plasticizing capacity coupled with good extrudate quality.