ExxonMobil Chemical

ExxonMobil® HDPE

HMA 016

High Density Polyethylene for Injection Molding Applications

Key features

HMA 016 is a HDPE grade, characterized by fast cycling and good impact strength. It has high gloss and high dimensional stability.

It is typically used for the injection molding of housewares, food containers, closures and toys.

Recommended processing conditions

Barrel temperature settings depend on a number of factors, such as size and type of machine, shot size and cycle.

- Melt temperature : 200 - 280 °C
- Mold temperature : 20 - 60 °C

Typical values

General properties	Test Method (based on)	Unit	Typical Value
Melt index (2.16 kg)	ASTM D 1238	g/10 min	20
Density	ASTM D1928/D1505	g/cm^3	0.956
Melting Point (DSC)	ASTM D 3418	°C	131
Crystallization Point (DSC)	ASTM D 3418	°C	114
Vicat Softening point (DSC)	ASTM D 1525	°C	121
Mechanical properties			
Elastic modulus (0.05 - 0.25 %)	ISO 527-2/1B/1	MPa	880
Flexural Modulus (0.05 - 0.25 %)	ISO 178	MPa	920
Tensile at Yield	ISO 527-2/1B/1	MPa	23
Elongation at break	ISO 527-2/1B/1	%	> 100
Elongation at yield	ISO 527-2/1B/1	%	10
Izod Impact	ISO 180-4A	kJ/m^2	4.5
Shore Hardness - D (15 sec)	ASTM D 2240		60
ESCR (F_{50}, 100 % Igepal)	ASTM D 1693	h	1.2

The mechanical properties have been measured on injection molded specimen, prepared according to ISO 1873-2.

HMA 016 can - in principle - be used in food contact applications in all EU Member States and in the USA (FDA). Migration or use limitations may apply. Please contact your ExxonMobil Chemical representative for more detailed information and/or actual compliance certification documents for the specific grade of interest.

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