

SABIC® LDPE HP20023

LOW DENSITY POLYETHYLENE

DESCRIPTION

HP20023 is an additive free low density polyethylene grade with high melt flow, offering good processability and capability to accept high pigment loading during compounding.

TYPICAL APPLICATIONS

Base resin for masterbatch compounding for high loading carbon black, titanium dioxide and color pigments. Injection molding for flexible household articles, lids and caps.

TYPICAL PROPERTY VALUES

Revision 20220429

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
POLYMER PROPERTIES			
Melt Flow Rate (MFR)			
at 190°C and 2.16 kg	20	g/10 min	ASTM D1238
Density			
at 23°C	923	kg/m ³	ASTM D1505
MECHANICAL PROPERTIES			
Flexural properties			
flexural strength	7	MPa	ASTM D790
flexural modulus	175	MPa	ASTM D790
Izod Impact Strength	500	J/m	ASTM D256
Hardness Shore D	45	-	ISO 868
ESCR (100% Igepal), F50	6	Hrs	ASTM D1693B
ESCR (10% Igepal), F50	2	Hrs	ASTM D1693B
Tensile Properties			
1% secant modulus	225	MPa	ASTM D638
stress at yield	8	MPa	ASTM D638
stress at break	9	MPa	ASTM D638
strain at break	150	%	ASTM D638
THERMAL PROPERTIES			
Vicat Softening Temperature	92	°C	ASTM D1525
Peak Melting Temperature	112	°C	SABIC method
Crystallization Temperature	98	°C	ISO 11357-3

PROCESSING CONDITIONS

Typical molding conditions for HP20023 are:

Barrel temperature: 160 - 200°C, Mold temperature: 20 - 40°C

STORAGE AND HANDLING

Polyethylene resin should be stored in a manner to prevent a direct exposure to sunlight and/or heat. The storage area should also be dry and preferably do not exceed 50°C. SABIC would not give warranty to bad storage conditions, which may lead to quality deterioration such as color change, bad smell and inadequate product performance. It is advisable to process PE resin within 6 months after delivery.



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