

# 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
<b>POLYMER PROPERTIES</b>			
<b>Melt Flow Rate (MFR)</b>			
at 190°C and 2.16 kg	20	g/10 min	ASTM D1238
<b>Density</b>			
at 23°C	923	kg/m <sup>3</sup>	ASTM D1505
<b>MECHANICAL PROPERTIES</b>			
<b>Flexural properties</b>			
flexural strength	7	MPa	ASTM D790
flexural modulus	175	MPa	ASTM D790
<b>Izod Impact Strength</b>	500	J/m	ASTM D256
<b>Hardness Shore D</b>	45	-	ISO 868
<b>ESCR (100% Igepal), F50</b>	6	Hrs	ASTM D1693B
<b>ESCR (10% Igepal), F50</b>	2	Hrs	ASTM D1693B
<b>Tensile Properties</b>			
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
<b>THERMAL PROPERTIES</b>			
<b>Vicat Softening Temperature</b>	92	°C	ASTM D1525
<b>Peak Melting Temperature</b>	112	°C	SABIC method
<b>Crystallization Temperature</b>	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.



## DISCLAIMER

Any sale by SABIC, its subsidiaries and affiliates (each a "seller"), is made exclusively under seller's standard conditions of sale (available upon request) unless agreed otherwise in writing and signed on behalf of the seller. While the information contained herein is given in good faith, SELLER MAKES NO WARRANTY, EXPRESS OR IMPLIED, INCLUDING MERCHANTABILITY AND NONINFRINGEMENT OF INTELLECTUAL PROPERTY, NOR ASSUMES ANY LIABILITY, DIRECT OR INDIRECT, WITH RESPECT TO THE PERFORMANCE, SUITABILITY OR FITNESS FOR INTENDED USE OR PURPOSE OF THESE PRODUCTS IN ANY APPLICATION. Each customer must determine the suitability of seller materials for the customer's particular use through appropriate testing and analysis. No statement by seller concerning a possible use of any product, service or design is intended, or should be construed, to grant any license under any patent or other intellectual property right.