

# SABIC® LDPE HP7023

LOW DENSITY POLYETHYLENE FOR INJECTION MOLDING

## DESCRIPTION

HP7023 is a Low Density Polyethylene grade that offers a unique combination of consistent processability, flexibility and toughness. Articles manufactured from HP7023 exhibits excellent impact strength, low shrinkage and good gloss.

## TYPICAL APPLICATIONS

HP7023 is intended for producing flexible injection molded articles. It is particularly suitable for closures, caps, lids, housewares articles, toys and as base resin for Masterbatch.

## TYPICAL PROPERTY VALUES

Revision 20211207

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
<b>POLYMER PROPERTIES</b>			
<b>Melt Flow Rate (MFR)</b>			
@ 190°C & 2.16 kg load <sup>(1)</sup>	7.0	g/10 min	ASTM D1238
<b>Density at 23°C</b>	923	kg/m <sup>3</sup>	ASTM D1505
<b>MECHANICAL PROPERTIES</b>			
<b>Tensile Strength at Break <sup>(2)</sup></b>	10.5	MPa	ASTM D638
<b>Tensile Elongation at Break</b>	80	%	ASTM D638
<b>Tensile Strength at Yield</b>	9.0	MPa	ASTM D638
<b>1% Secant Modulus</b>	180	MPa	ASTM D638
<b>Izod Impact @ 23oC</b>	490	J/m	ASTM D256
<b>Hardness (Shore D)</b>	43	-	ASTM D2240
<b>OPTICAL PROPERTIES</b>			
<b>Gloss @ 45°</b>	45	-	ASTM D2457
<b>THERMAL PROPERTIES</b>			
<b>Vicat Softening Point</b>	89	°C	ASTM D1525
<b>Brittleness Temperature</b>	<-75	°C	ASTM D746

(1) Typical values; not to be construed as specification limits.

(2) Based on molded specimens.

## PROCESSING CONDITIONS

Typical molding conditions for HP7023 are:

Barrel temperature: 180 - 220°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.