

# SABIC® HDPE M40055S

HIGH DENSITY POLYETHYLENE

## DESCRIPTION

SABIC HDPE M40055S is a high-density polyethylene especially developed for injection molding application. It has been designed to provide good balance of stiffness, impact at low temperatures and UV stability for outdoors

## TYPICAL APPLICATIONS

• Waste bins and shipping containers. • Industrial pails. • Housewares.

## TYPICAL PROPERTY VALUES

Revision 20220720

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
<b>POLYMER PROPERTIES <sup>(1)</sup></b>			
<b>Melt Flow Rate (MFR)</b>			
at 190°C and 2.16 kg	4.0	g/10 min	ASTM D1238
<b>Density</b>			
Density	0.955	g/cm <sup>3</sup>	ASTM D792
<b>Mould shrinkage</b>			
Molding Shrinkage - Flow (250°C) <sup>(2)</sup>	2.6	%	ASTM D955
<b>MECHANICAL PROPERTIES <sup>(1)</sup></b>			
<b>Tensile test <sup>(1) (2)</sup></b>			
Tensile Strength @ Yield	25.0	MPa	ASTM D638
Tensile Strength @ Break	12	MPa	ASTM D638
Tensile Elongation @ Break	720	%	ASTM D638
Flexural Strength	22	MPa	ASTM D790
Flexural Modulus	710	MPa	ASTM D790
<b>THERMAL PROPERTIES</b>			
<b>Vicat Softening Temperature <sup>(1) (2)</sup></b>			
Vicat softening temperature	128	°C	ASTM D1525

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

(2) Based on Injection molded specimens

## PROCESSING CONDITIONS

Typical processing conditions for M40055S are:

Barrel temperature: 200°C-250°C

Mold temperature: 15-60°C

## STORAGE AND HANDLING

Polyethylene material 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 don't 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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