

# SABIC® HDPE M40060S

HIGH DENSITY POLYETHYLENE

## DESCRIPTION

SABIC® HDPE M40060S is a UV stabilized, High Density Polyethylene copolymer injection molding grade with a narrow molecular weight distribution. Articles produced from this grade typically show good rigidity, good impact strength, low warpage, stress crack resistance (ESCR) and good gloss.

## TYPICAL APPLICATIONS

M40060S is recommended for industrial pails, shipping containers and other parts requiring balance of toughness and rigidity.

## TYPICAL PROPERTY VALUES

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
<b>POLYMER PROPERTIES</b>			
<b>Melt Flow Rate (MFR)</b>			
at 190°C and 2.16 kg	4	g/10 min	ASTM D1238
<b>Density at 23°C <sup>(1)</sup></b>	960	kg/m <sup>3</sup>	ASTM D1505
<b>MECHANICAL PROPERTIES</b>			
<b>1% Secant Modulus <sup>(2)</sup></b>	950	MPa	ASTM D638
<b>Tensile Strength at Yield</b>	24	MPa	ASTM D638
<b>Tensile Strength at Break</b>	22	MPa	ASTM D638
<b>Tensile Elongation at Break</b>	>600	%	ASTM D638
<b>Flexural Strength</b>	24	MPa	ASTM D790
<b>Flexural Modulus</b>	900	MPa	ISO 178/1A
<b>Izod Impact Strength</b>	180	J/m	ASTM D256
<b>Hardness (Shore D)</b>	60	-	ASTM D2240
<b>ESCR (100% Igepal), F50 <sup>(3)</sup></b>	6	Hrs	ASTM D1693B
<b>ESCR (10% Igepal), F50</b>	3	Hrs	ASTM D1693B
<b>THERMAL PROPERTIES</b>			
<b>Vicat Softening Point</b>	125	°C	ASTM D1525
<b>Brittleness Temperature</b>	<-75	°C	ASTM D746

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

(2) Based on Injection molded specimens.

(3) Based on compression molded sheet

## PROCESSING CONDITIONS

Typical processing conditions for M40060S are:

Melt temperature: 190 - 250°C

Mold temperature: 15 - 60°C

Injection pressure: 6000 - 1000 Bar