

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