

SABIC® M40053S

M40053S is a UV stabilized High Density Polyethylene grade with narrow molecular weight distribution suitable for injection molding applications. It has been designed to provide good balance of stiffness and impact at low temperatures and is also having good weatherability and surface properties.

Physical Properties	Metric	English	Comments
Density	0.953 g/cc	0.0344 lb/in ³	ASTM D1505

ESCR 100% Igepal®

7.0 hour

7.0 hour

F50; Based on compression molded sheet.; ASTM D1693B

ESCR 10% Igepal®

4.0 hour

4.0 hour

F50; ASTM D1693B

Melt Flow

4.0 g/10 min
@Load 2.16 kg,
Temperature 190 °C

4.0 g/10 min
@Load 4.76 lb,
Temperature 374 °F

ASTM D1238

Mechanical Properties	Metric	English	Comments
Hardness, Shore D	60	60	Based on Injection molded specimens.; ASTM D2240

Tensile Strength at Break

21.0 MPa

3050 psi

ASTM D638

Tensile Strength, Yield

23.0 MPa

3340 psi

ASTM D638

Elongation at Break

>= 800 %

>= 800 %

ASTM D638

Flexural Strength

21.0 MPa

3050 psi

ASTM D790

Flexural Modulus

0.800 GPa

116 ksi

ISO 178/1A

1% Secant Modulus

900 MPa

131000 psi

ASTM D638

Izod Impact, Notched

1.50 J/cm

2.81 ft-lb/in

ASTM D256

Thermal Properties	Metric	English	Comments
Vicat Softening Point	125 °C	257 °F	ASTM D1525
Brittleness Temperature	<= -75.0 °C	<= -103 °F	ASTM D746