

SABIC® HDPE M864SG

High Density Polyethylene

Saudi Basic Industries Corporation (SABIC)

Message:

SABIC® HDPE M864SG is an UV stabilized, high density polyethylene injection moulding grade with a narrow molecular weight distribution. It is typically used for injection moulding applications where rigidity, toughness and warp resistance are required.

Typical applications.

SABIC® HDPE M864SG is typically used for the manufacture of injection moulded cases, crates, trays, industrial pails and other similar items.

This product is not intended for and must not be used in any pharmaceutical/medical applications.

| General Information | | | |
|---|--------------------------------------|-------------------|------------------|
| Additive | UV stabilizer | | |
| Features | Good Rigidity | | |
| | UV Stabilized | | |
| | High density | | |
| | Bending resistance | | |
| | Good toughness | | |
| | Narrow molecular weight distribution | | |
| Uses | Industrial application | | |
| | Barrel | | |
| | Loading box | | |
| Processing Method | Injection molding | | |
| Physical | Nominal Value | Unit | Test Method |
| Density | 0.964 | g/cm ³ | ISO 1183 |
| Melt Mass-Flow Rate (MFR) | | | ISO 1133 |
| 190°C/2.16 kg | 8.0 | g/10 min | ISO 1133 |
| 190°C/5.0 kg | 22 | g/10 min | ISO 1133 |
| Hardness | Nominal Value | Unit | Test Method |
| Durometer Hardness (Shore D, Compression Molded) | 65 | | ISO 868 |
| Mechanical | Nominal Value | Unit | Test Method |
| Tensile Modulus (2.00 mm, Compression Molded) | 1450 | MPa | ISO 527-2/1BA/50 |
| Tensile Stress | | | ISO 527-2/1BA/50 |
| Yield, 2.00mm, molded | 32.0 | MPa | ISO 527-2/1BA/50 |
| Fracture, 2.00mm, molded | 15.0 | MPa | ISO 527-2/1BA/50 |
| Tensile Strain (Break, 2.00 mm, Compression Molded) | > 200 | % | ISO 527-2/1BA/50 |
| Flexural Modulus (2.00 mm, Compression Molded) | 1700 | MPa | ISO 178 |

| | | | |
|--|---------------|-------------------|-------------|
| Flexural Stress (2.00 mm, Compression Molded) | 32.0 | MPa | ISO 178 |
| Impact | Nominal Value | Unit | Test Method |
| Notched Izod Impact (23°C, Compression Molded) | 4.0 | kJ/m ² | ISO 180/A |
| Thermal | Nominal Value | Unit | Test Method |
| Heat Deflection Temperature (0.45 MPa, Unannealed) | 95.0 | °C | ISO 75-2/B |
| Vicat Softening Temperature | 129 | °C | ISO 306/A |
| Melting Temperature (DSC) | 135 | °C | ISO 11357-3 |
| Enthalpy Change | 229 | J/g | ISO 11357-3 |
| Injection | Nominal Value | Unit | |
| Processing (Melt) Temp | 230 - 275 | °C | |
| Mold Temperature | 32 - 38 | °C | |
| Injection Pressure | 69.0 - 89.0 | MPa | |

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