

SABIC® HDPE M864SE

HIGH DENSITY POLYETHYLENE

DESCRIPTION

SABIC® HDPE M864SE is an UV stabilized, high density polyethylene injection molding grade with a narrow molecular weight distribution. It is typically used for injection molding applications where rigidity, toughness and warp resistance are required.

SABIC® HDPE M864SE is typically used for the manufacture of injection molded cases, crates, trays, industrial pails and other similar items.

Processing conditions.

Typical molding conditions for SABIC® HDPE M864SE are: Melt temperature: 230 - 275 °C (450 - 525 °F); Mold temperature: 32 - 38 °C (90 - 100 °F); Injection pressure: 69 - 89 MPa (10000 - 13000 PSI)

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

TYPICAL PROPERTY VALUES

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
POLYMER PROPERTIES			
Melt Flow Rate (MFR)			
at 190 °C and 2.16 kg	8	dg/min	ISO 1133
at 190 °C and 5 kg	21.5	dg/min	ISO 1133
Density⁽¹⁾	964	kg/m ³	ISO 1183
MECHANICAL PROPERTIES^{(1) (2)}			
Tensile test^{(3) (4)}			
stress at yield	32	MPa	ISO 527-2
stress at break	15	MPa	ISO 527-2
strain at break	200	%	ISO 527-2
tensile modulus	1450	MPa	ISO 527-2
Flexural test			
Flexural modulus	1700	MPa	ISO 178
Flexural strength	32	MPa	ISO 178
Izod impact notched			
at 23 °C	4	kJ/m ²	ISO 180/A
Hardness Shore D	65	-	ISO 868
THERMAL PROPERTIES			
Heat deflection temperature^{(1) (2)}			
at 0.45 MPa (HDT/B)	95	°C	ISO 75-2
Vicat Softening Temperature^{(1) (2)}			
at 10 N (VST/A)	129	°C	ISO 306
DSC test			
melting point	135	°C	ISO 11357-3
enthalpy change	229	J/g	ISO 11357-3