

SABIC® HDPE M864E

HIGH DENSITY POLYETHYLENE

DESCRIPTION

SABIC® HDPE M864E is a 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 M864E is available with UV stabilizer as SABIC® HDPE M864SE and M864SG.

Typical applications.

Crates & Boxes: SABIC® HDPE M864E is typically used for the manufacture of injection molded cases, crates, trays, industrial pails and other similar items. Caps & Closures: SABIC HDPE® M864E is typically used for Juice, Milk and Edible Oil applications.

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			
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	964	kg/m ³	ASTM D1505
MECHANICAL PROPERTIES			
Tensile test ^{(1) (2)}			
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
ESCR on Caps ⁽³⁾	7	h	SABIC method
THERMAL PROPERTIES			
Heat deflection temperature			
at 0.45 MPa (HDT/B)	94	°C	ISO 75-2
Vicat Softening Temperature ^{(4) (5)}			
at 10 N (VST/A)	129	°C	ISO 306
DSC test			
melting point	134	°C	ISO 11357-3
enthalpy change	226	J/g	ISO 11357-3
C&C PROPERTIES			
Organoleptic properties	approved	-	SABIC method