SABIC® HDPE CC860V

HIGH DENSITY POLYETHYLENE

DESCRIPTION

SABIC® HDPE CC860V is typically used for the injection molding of high demanding applications, such as caps & closures for still water applications. The material offers a good combination of stiffness and impact resistance.

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	7.6	dg/min	ISO 1133
at 190 °C and 5 kg	21	dg/min	ISO 1133
Density [1]	960	kg/m³	ISO 1183
MECHANICAL PROPERTIES [1] [2]			
Tensile test [3] [4]			
stress at yield	30	MPa	ISO 527-2
stress at break	15	MPa	ISO 527-2
strain at break	200	%	ISO 527-2
tensile modulus	1300	MPa	ISO 527-2
Flexural test			
Flexural modulus	1500	MPa	ISO 178
Flexural strength	30	MPa	ISO 178
Izod impact notched			
at 23 °C	4	kJ/m²	ISO 180/A
Hardness Shore D	64	-	ISO 868
ESCR on Caps [5]	12	h	SABIC method
THERMAL PROPERTIES			
Heat deflection temperature [1] [2]			
at 0.45 MPa (HDT/B)	90	°C	ISO 75-2
Vicat Softening Temperature [1] [2]			
at 10 N (VST/A)	127	°C	ISO 306
DSC test			
melting point	133	°C	ISO 11357-3
enthalpy change	219	J/g	ISO 11357-3
C&C PROPERTIES			
Organoleptic properties	approved	-	SABIC method

(1) Compression moulding of test specimen according to ISO 1872-2
(2) Conditioning of test specimen: temp. 23 °C, relative humidity 50 %, 24 hours
(3) Speed of testing: 50 mm/min
(4) Test specimen according to ISO 527-2 type 1BA, thickness 2 mm
(5) Determined in 10% Igepal CO-630 at 40 °C, 6 bar internal water pressure, thickness 1 mm