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SABIC® HDPE PCG863

HIGH DENSITY POLYETHYLENE

DESCRIPTION

SABIC® HDPE grades for healthcare applications are produced under controlled conditions resulting in high product quality, consistency and a high level of purity.
SABIC® HDPE PCG863 is typically used for the injection molding of healthcare packaging, caps and closures and other parts for medical packaging. It is an easy-to-process, stiff grade.

Compliance to regulations.
SABIC® HDPE PCG863 complies with the relevant monographs of the European Pharmacopoeia (EP) and the United States Pharmacopoeia (USPVI).

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	23	dg/min	ISO 1133
Density [1]	963	kg/m³	ISO 1183
MECHANICAL PROPERTIES [1] [2]			
Tensile test [3] [4]			
stress at yield	31	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	1650	MPa	ISO 178
Flexural strength	32	MPa	ISO 178
Izod impact notched			
at 23 °C	4	kJ/m²	ISO 180/A
Hardness Shore D	65	-	ISO 868
ESCR on Caps [5]	8	h	SABIC method
THERMAL PROPERTIES			
Heat deflection temperature [1] [2]			
at 0.45 MPa (HDT/B)	94	°C	ISO 75-2
Vicat Softening Temperature [1] [2]			
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

(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