



SABIC® HDPE ICP5506

HIGH DENSITY POLYETHYLENE

DESCRIPTION

SABIC® HDPE ICP5506 is part of SABIC's high density polyethylene Industrial Container Product portfolio.

SABIC® HDPE ICP5506 is a material with a specific molecular weight distribution, typically used for blow molding of light weight and UN certified cans from 2 until 30 liters.

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 21.6 kg	5.7	dg/min	ISO 1133
Density ⁽¹⁾	955	kg/m³	ISO 1183
MECHANICAL PROPERTIES ^{(1) (2)}			
Tensile test ^{(3) (4)}			
stress at yield	26	MPa	ISO 527-2
stress at break	40	MPa	ISO 527-2
strain at break	1000	%	ISO 527-2
tensile modulus	1100	MPa	ISO 527-2
Flexural test			
Flexural modulus	1300	MPa	ISO 178
Flexural strength	27	MPa	ISO 178
Izod impact notched			
at 23 °C	35	kJ/m²	ISO 180/A
at -30 °C	25	kJ/m²	ISO 180/A
Hardness Shore D	61	-	ISO 868
ESCR (Strain Hardening), Gp	27	MPa	ISO 18488
ESCR (10% Igepal CO-630), F50	500	h	ASTM D1693B
THERMAL PROPERTIES			
Heat deflection temperature ^{(1) (2)}			
at 0.45 MPa (HDT/B)	82	°C	ISO 75-2
Vicat Softening Temperature ^{(1) (2)}			
at 10 N (VST/A)	128	°C	ISO 306
DSC test			
melting point	133	°C	ISO 11357-3
enthalpy change	207	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