

SABIC® HDPE ICP4907S

HIGH DENSITY POLYETHYLENE

DESCRIPTION

SABIC® HDPE ICP4907S is part of SABIC's high density polyethylene Industrial Container Product portfolio.

SABIC® HDPE ICP4907S is typically used for state of the art blow molding UN certified Intermediate Bulk Containers and Heating Oil Tanks, up to 1000 liters and more. This UV-stabilized and food approved grade combines good processing performance with good stress crack resistance, stiffness and impact performance.

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	7	dg/min	ISO 1133
Density ⁽¹⁾	949	kg/m ³	ISO 1183
MECHANICAL PROPERTIES ^{(1) (2)}			
Tensile test ^{(3) (4)}			
stress at yield	23	MPa	ISO 527-2
stress at break	34	MPa	ISO 527-2
strain at break	1000	%	ISO 527-2
tensile modulus	950	MPa	ISO 527-2
Flexural test			
Flexural modulus	1000	MPa	ISO 178
Flexural strength	24	MPa	ISO 178
Izod impact notched			
at -30 °C	17	kJ/m ²	ISO 180/A
Hardness Shore D	60	-	ISO 868
ESCR (Strain Hardening), Gp	30	MPa	ISO 18488
ESCR (10% Igepal CO-630), F50	800	h	ASTM D1693B
THERMAL PROPERTIES			
Heat deflection temperature ^{(1) (2)}			
at 0.45 MPa (HDT/B)	77	°C	ISO 75-2
Vicat Softening Temperature ^{(1) (2)}			
at 10 N (VST/A)	126	°C	ISO 306
DSC test			
melting point	131	°C	ISO 11357-3
enthalpy change	192	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