



# SABIC® HDPE B5421

## HIGH DENSITY POLYETHYLENE

### DESCRIPTION

SABIC® HDPE B5421 is typically used for blow molding consumer packaging up to 5 l, combining a good stiffness with an high ESCR. This grade is typically used for packaging detergents, cleaners, shampoos and cosmetics at a high ESCR demand.

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
<b>POLYMER PROPERTIES</b>			
<b>Melt Flow Rate (MFR)</b>			
at 190 °C and 2.16 kg	0.16	dg/min	ISO 1133
at 190 °C and 5 kg	0.89	dg/min	ISO 1133
at 190 °C and 21.6 kg	20	dg/min	ISO 1133
<b>Density <sup>(1)</sup></b>	954	kg/m³	ISO 1183
<b>MECHANICAL PROPERTIES</b>			
<b>Tensile test <sup>(2) (3)</sup></b>			
stress at yield	26	MPa	ISO 527-2
stress at break	27	MPa	ISO 527-2
strain at break	1000	%	ISO 527-2
tensile modulus	1050	MPa	ISO 527-2
<b>Flexural test</b>			
Flexural modulus	1250	MPa	ISO 178
Flexural strength	27	MPa	ISO 178
<b>Izod impact notched</b>			
at 23 °C	14	kJ/m²	ISO 180/A
at -30 °C	6	kJ/m²	ISO 180/A
<b>Hardness Shore D</b>	61	-	ISO 868
<b>ESCR (10% Igepal CO-630), F50</b>	50	h	ASTM D1693B
<b>THERMAL PROPERTIES</b>			
<b>Heat deflection temperature <sup>(1) (4)</sup></b>			
at 0.45 MPa (HDT/B)	81	°C	ISO 75-2
<b>Vicat Softening Temperature <sup>(1) (4)</sup></b>			
at 10 N (VST/A)	127	°C	ISO 306
<b>DSC test</b>			
melting point	135	°C	ISO 11357-3
enthalpy change	205	J/g	ISO 11357-3