

# SABIC<sup>®</sup> HDPE A4046

HIGH DENSITY POLYETHYLENE

## DESCRIPTION

SABIC<sup>®</sup> HDPE A4046 is a medium density HDPE and is typically used for the production of PE-Xb compounds. The additive package has been optimized for the silane grafting process.

The typical application of these is the manufacture of PEX pipes for hot and cold water and central heating.

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</b>			
at 190 °C and 2.16 kg	3.5	dg/min	ISO 1133
<b>Density</b>	946	kg/m <sup>3</sup>	ASTM D1505
<b>MECHANICAL PROPERTIES</b>			
<b>Tensile test</b> <sup>(1) (2)</sup>			
stress at yield	22	MPa	ISO 527-2
stress at break	31	MPa	ISO 527-2
strain at break	200	%	ISO 527-2
tensile modulus	800	MPa	ISO 527-2
<b>THERMAL PROPERTIES</b>			
<b>Heat deflection temperature</b>			
at 0.45 MPa (HDT/B)	73	°C	ISO 75-2
<b>Vicat Softening Temperature</b> <sup>(3) (4)</sup>			
at 10 N (VST/A)	121	°C	ISO 306
<b>DSC test</b>			
melting point	130	°C	DIN 53765
enthalpy change	186	J/g	DIN 53765

(1) Speed of testing: 50 mm/min

(2) Test specimen according to ISO 527-2 type 1BA, thickness 2 mm

(3) Compression moulding of test specimen according to ISO 1872-2

(4) Conditioning of test specimen: temp. 23 °C, relative humidity 50 %, 24 hours