

P5510 Black

HDPE for Pipe Extrusion

P5510 is a black High Density Polyethylene (HDPE) resin specifically designed for Pipe Extrusion. It provides excellent stress crack resistance properties (ESCR) combined with very good long term hydrostatic strength.

Typical Applications

SABIC HDPE P5510 (black) is a grade, which has a high density (class MRS 8 - PE 80) and a bimodal distribution of the molecular mass. An universal grade for pipe extrusion which, due to a keen combination of properties, is particularly suitable for drinking water, gas distribution and waste water pipes. It is also used for the manufacture of chemical apparatus and containers.

Polymer Properties	Unit	Values	Test Method
Melt Flow Rate (MFR) (190°C/5.0 kg) (190°C/21.6 kg)	g/10 min.	0.43 12.4	ISO 1133
Carbon Black Content	%	2.25	ISO 6964
Density ⁽¹⁾	kg/m ³	958	ISO 1183
Mechanical Properties ^{(1) (2)}			
Tensile Test ^{(3) (4)}			
Stress at Yield	Mpa	22	ISO 527-2
Strain at Yield	%	8	
Tensile Modulus	Mpa	850	
Charpy Impact Notched at 23 °C at -30 °C	kJ/m ² kJ/m ²	24 8	ISO 179
Hardness Shore D	-	59	ISO 868
Thermal Properties			
Vicat Softening Temperature ^{(1) (2)} at 50 N (VST/B)	°C	70	ISO 306
DSC Test (Melting Point)	°C	123-127	DIN 53765
OIT 210 °C	min	> 20	EN 728

NOTICE: The information and data contained herein are believed to be correct and given in good faith, but because of the many particular factors which are outside our knowledge and control and affect the use of product, no warranty is given or is to be implied with respect to such information, nor do we offer any warranty of immunity against infringement.

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(1) Compression moulding conditions of test specimen (according to ISO 293) :
moulding temp: 160 °C, cooling rate: 40 °C/min

(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

Processing Conditions:

Recommended melt temperatures: 190-220 °C

Food Regulations:

Certificate is available on request.