

# SABIC® HDPE C0549

## HIGH DENSITY POLYETHYLENE

### DESCRIPTION

C0549 is a black High Density Polyethylene designed for Jacketing compound. This grade has excellent processability and physical properties as well as high Environmental stress crack resistance. 2.5% Carbon Black is added to ensure an outstanding weather and UV resistance.

### TYPICAL APPLICATIONS

Bedding and Jacketing for medium and high voltage power and telecommunication cables.

Using sound commercial extrusion practices, HDPE C0549 normally meets the following cable product specifications:

IEC 60502, Type ST7

IEC 60708

### TYPICAL PROPERTY VALUES

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
<b>POLYMER PROPERTIES<sup>(1)</sup></b>			
<b>Density</b>			
Density (Base Resin)	948	kg/m <sup>3</sup>	ASTM D1505
Density (Compound)	960	kg/m <sup>3</sup>	ASTM D1505
<b>Melt Flow Rate (MFR)<sup>(1)</sup></b>			
at 190°C and 5 kg <sup>(1)</sup>	1.8	g/10 min	ASTM D1238
<b>Carbon black content</b>	2.5	%	ISO 6964
<b>MECHANICAL PROPERTIES<sup>(1)</sup></b>			
<b>Tensile Strength at Yield<sup>(2)</sup></b>	33	MPa	ASTM D638
<b>Tensile Elongation at Break<sup>(2)</sup></b>	1000	%	ASTM D638
<b>Flexural Modulus</b>	950	MPa	ISO 178/1A
<b>ESCR (50°C, 10% Igepal), F0<sup>(2)</sup></b>	>5000	Hrs	ASTM D1693B
<b>Hardness (Shore D)</b>	61	-	ASTM D2240
<b>THERMAL PROPERTIES</b>			
<b>Brittleness Temperature</b>	<-90	°C	ASTM D746
<b>ELECTRICAL PROPERTIES<sup>(1)</sup></b>			
<b>Volume Resistivity @ 500V</b>	7.3E15	Ω.cm	ASTM D257
<b>Surface resistance</b>	6.3E17	Ω	SABIC method
<b>Dielectric Strength</b>	33.3	kV/mm	ASTM D150

(1) Typical values; not to be construed as specification limits.

(2) Based on compression molded specimens