

Orevac® 18410

High Density Polyethylene

Arkema

Technical Data

Product Description

OREVAC® 18410 is amaleic anhydride modified high-density polyethylene used in pipe-coating technology for multi-layer structures. It is available in pellet form for use in conventional extrusion equipment designed to process polyolefin.

OREVAC® 18410 has been designed to develop a reliable bonding strength onto FBE (Fusion Bonded Epoxy) steel pipe protective layer. It is mainly used as tie layer in three-layer high-density polyethylene coatings (epoxy primer/adhesive/polyethylene), where mechanical and adhesive performances at high temperatures are required.

General

Material Status	• Commercial: Active		
Literature ¹	• Technical Datasheet (English)		
Search for UL Yellow Card	• Arkema		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America • South America
Features	• Good Adhesion		
Uses	• Adhesives • Coating Applications	• Pipe Coatings • Tie-Layer	
Appearance	• Natural Color		
Forms	• Pellets		
Processing Method	• Extrusion		

Physical	Nominal Value Unit	Test Method
Density	0.930 g/cm³	ISO 1183 ASTM D1505
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	3.5 g/10 min	ASTM D1238 ISO 1133

Mechanical	Nominal Value Unit	Test Method
Tensile Modulus (Compression Molded)	310 MPa	ASTM D638 ISO 527-2
Tensile Strength (Break, Compression Molded)	12.4 MPa	ASTM D638 ISO 527-2
Tensile Elongation		
Yield, Compression Molded	> 600 %	ASTM D638
Break, Compression Molded	> 600 %	ISO 527-2

Hardness	Nominal Value Unit	Test Method
Durometer Hardness		
Shore D, Compression Molded	59	ASTM D2240
Shore D	59	ISO 868

Thermal	Nominal Value Unit	Test Method
Vicat Softening Temperature ³	110 °C	ISO 306/A ASTM D1525 ⁴
Melting Temperature	125 °C	ISO 11357-3

Extrusion	Nominal Value Unit
Cylinder Zone 1 Temp.	190 to 200 °C
Cylinder Zone 2 Temp.	200 °C
Cylinder Zone 3 Temp.	200 to 210 °C
Cylinder Zone 4 Temp.	210 to 220 °C
Cylinder Zone 5 Temp.	220 to 230 °C
Die Temperature	220 to 240 °C

Extrusion Notes

Fittings - Channels Temperature: 220 to 240°C