

## High-density polyethylene based tie resin for pipe-coating

### Description

OREVAC® 18410 is a maleic 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.

### Applications

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.

For more detailed information and recommendations regarding your specific application, please contact your local ARKEMA technical representative.

### Typical properties

Characteristics	Value	Unit	Test Method
Melt index (190°C / 2.16 kg)	3.5	g/10min	ISO 1133 / ASTM D1238
Melting point	125	°C	ISO 11357-3
Density	0.930	g/cm <sup>3</sup>	ISO 1183 / ASTM D1505
Vicat softening temperature (10N) <sup>(1)</sup>	110	°C	ISO 306 / ASTM D1525
Tensile modulus <sup>(1)</sup>	310	MPa	ISO 527-2 / ASTM D638
Elongation at break <sup>(1)</sup>	12.4	%	ISO 527-2 / ASTM D638
Tensile strength at break <sup>(1)</sup>	>600	MPa	ISO 527-2 / ASTM D638
Hardness shore D <sup>(1)</sup>	59	-	ISO 608 / ASTM D2240

<sup>(1)</sup> On compression molded samples.

### Processing

OREVAC® 18410 is to be processed like a standard polyethylene resin. Typical extrusion temperature settings could be:

Zone 1	Zone 2	Zone 3	Zone 4	Exit	Fittings-Channels	Die
190 – 200°C	200 – 200°C	200 – 210°C	210 – 220°C	220 – 230°C	220 – 240°C	220 – 240°C

Final profile and settings depend on the line and the structure being run.

### Storage, handling and safety

OREVAC® 18410 should be stored in dry conditions protected from UV-light. Improper storage conditions may cause degradation and have consequences on physical properties of the product.

Safety data sheet as well as information on handling and storage of OREVAC® 18410 is available upon request to your ARKEMA representative or at [www.orevac.com](http://www.orevac.com).

September 2010

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