

## Linear low-density polyethylene tie resin for industrial applications

### Description

OREVAC® 18342 is an anhydride modified linear low-density polyethylene available in pellet form. It can be processed on most extrusion equipments designed to process conventional polyolefin.

### Applications

OREVAC® 18342 is used as tie layer in 3 layers polyethylene coatings (epoxy primer / adhesive / polyethylene) for external protection of steel pipe. OREVAC® 18342 is also an effective coupling agent in non-halogen flame retardant cable compounds using high loadings of mineral fillers which require outstanding mechanical properties – high tensile strength at break and good elongation and good chemical resistance. 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)	1.5	g/10min	ISO 1133 / ASTM D1238
Melting point	123	°C	ISO 11357-3
Density	0.912	g/cm <sup>3</sup>	ISO 1183 / ASTM D1505
Vicat softening temperature (10N) <sup>(1)</sup>	84	°C	ISO 306 / ASTM D1525
Tensile strength at yield <sup>(1)</sup>	7	MPa	ISO 527-2 / ASTM D638
Elongation at break <sup>(1)</sup>	790	%	ISO 527-2 / ASTM D638
Tensile strength at break <sup>(1)</sup>	20	MPa	ISO 527-2 / ASTM D638

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

### Processing

OREVAC® 18342 is to be processed like a standard polyethylene resin. Temperature settings have a major influence on adhesion development. As a consequence we recommend to process OREVAC® 18342 at the minimum melt temperature of 210°C. Typical extrusion temperature settings could be:

Zone 1	Zone 2	Zone 3	Zone 4	Exit	Fittings-Channels	Die
160 – 180°C	180 – 200°C	200 – 220°C	210 – 230°C	215 – 230°C	220 – 230°C	220 – 240°C

For the production of cable compounds, OREVAC® 18342 is suitable with the most common types of equipment (internal mixers, Buss® kneader, twin screw extruders). It provides an effective coupling between the base polymers (EVATANE®, LOTRYL®, various polyolefins) and the mineral fillers (ATH, MDH).

### Storage, handling and safety

OREVAC® 18342 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® 18342 is available upon request to your ARKEMA representative or at [www.orevac.com](http://www.orevac.com).

September 2010

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