SK functional polymer

Technical Data Sheet
Date Prepared: March 2020

OREVAC® 18341

OREVAC® 18341 is a maleic anhydride grafted linear low-density polyethylene.

- OREVAC® 18341 has been designed to develop a reliable bonding strength between polyethylene or ethylene copolymers and mineral fillers such as aluminum trihydrate (ATH) or magnesium hydroxide (MDH). It is an effective coupling agent for halogen-free flame retardant compounds using high loadings of mineral fillers, such as compounds for insulation and sheathing of wires and cables.
- OREVAC® 18341 can also be used as a tie layer in pipe-coating technology for multi-layer structures. It has been designed to develop a reliable bonding strength onto FBE (Fusion Bonded Epoxy) steel pipe protective layer
- In packaging market, OREVAC® 18341 develops a reliable bonding strength in coextrusion processes between polyethylene and different materials (PA, EVOH …). Containing a higher amount of grafted reactive functionalities compared to standard LLDPE based coextrusion tie resins, it can be used blended with other polyolefins.

Typical Properties

	Test Method	Unit	Typical Value
Melt Index (190°C/2.16kg)	ISO 1133 / ASTM D1238	g/10min.	1.5
Melting Point	ISO 11357-3	°C	121
Vicat Softening Temperature (10N)[1]	ISO 306 / ASTM D1525	°C	95
Density	ISO 1183 / ASTM D1505	g/cm^3	0.92
Tensile modulus[1]	ISO 527-2 / ASTM D638	MPa	250
Elongation at break[1]	ISO 527-2 / ASTM D638	%	>600
Tensile strength at break[1]	ISO 527-2 / ASTM D638	MPa	>20
Hardness Shore D (1s/15s) [1]	ISO 868 / ASTM D2240		55/45

[1]: On compression molded samples.

Processing

OREVAC® 18341 is suitable for the production of cable compounds with most common types of equipment (internal mixer, co-kneader, twin screw extruder). When used for pipe coating technology, OREVAC® 18341 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
180-190°C	190-200°C	200-210°C	210-220°C	220-230°C	220-240°C	220-240°C

Final profile and settings will depend on the line and the multi-layer structure being run.

Storage, Handling & Safety

OREVAC® 18341 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 the OREVAC® 18341 is available upon request to your SK Functional Polymer representative.

Shelf Life

Three years from the date of delivery, in unopened packaging. For any use above this limit, please refer to our technical services.