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OREVAC® 18751

Polypropylene based tie resin for extrusion coating

Description

OREVAC® 18751 is a coextrusion coating adhesive based on a maleic anhydride modified polypropylene resin. It is available in pellet form for use in conventional extrusion and coextrusion equipment designed to process polyolefin.

Applications

OREVAC® 18751 is a tie resin to be used in extrusion coating and extrusion lamination technologies. It has been designed to develop adhesion in these processes onto substrates like aluminum foil (*), paper or PP films and in coextrusion with resins like PP and PA.
OREVAC® 18751 exhibits excellent processing properties, particularly regarding drawability, neck-in and melt stability. In addition to adhesive properties, the special formulation of **OREVAC® 18751** allows to design aluminum lids for PP or PP coated cups and containers with controlled opening forces (**).

(*) Adhesion performance to aluminum foil is strongly dependant on thermal conditions in the laminator. Standard conditions of coating onto cold aluminum foil require using a specific post heating treatment in which the Orevac layer must be molten again.
*(**) Compared to the other extrusion-coating grade **OREVAC® 18750**, **OREVAC® 18751** is slightly more crystalline, leading to lower fat uptake, higher elastic modulus, higher yield strength and thus, higher opening forces in lids applications.*

Typical properties

Characteristics	Value	Unit	Test Method
Melt index (230°C / 2.16 kg)	35	g/10min	ISO 1133 / ASTM D1238
Melting point	160	°C	ISO 11357-3
Density	0.91	g/cm^3	ISO 1183 / ASTM D1505
Vicat softening point (10N)	138	°C	ISO 306 / ASTM D1525
Tensile modulus (1)	650	MPa	ISO 527-2 / ASTM D638
Tensile strength at yield (1)	22	MPa	ISO 527-2 / ASTM D638
Elongation at break (1)	500	%	ISO 527-2 / ASTM D638

(1) Measured on 25 µm films

Processing

OREVAC® 18751 is not corrosive and is readily processed with standard polyolefin equipment. Conditions typically used in extrusion coating of polypropylene resins are suitable. Extrusion temperature settings could be:

Zone 1	Zone 2	Zone 3	Zone 4	Fittings-Channels	Die
200-220°C	220-250°C	250-275°C	275°C	275°C	275°C

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

Although it is not necessary for short runs, it is recommended to dry **OREVAC® 18751** pellets prior to extrusion in order to reduce die build-up during long runs. Typical drying conditions would be from 2 to 4 hours at 80-90°C under dry air. Transitions from or to LDPE are easily achieved.

Storage, handling and safety

OREVAC® 18751 should be stored in dry conditions and protected from UV-light. Improper storage conditions may cause degradation and have consequences on physical properties of the product.

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