Technical Data Sheet

VERSALIS REVIVE® (PE) COM75LF1 H

LLDPE/LDPE based compound

VERSALIS REVIVE® PE COM75LF1 H is an LLDPE/LDPE-based polyolefin compound containing 75% of post-consumer plastic from trade and industry supply chain, effectively optimized with appropriate polymer bases and stabilizer agents making it suitable for blown film technology for the production of high quality films.

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Certificate n. 1915/2020

Main Applications

The specific composition of VERSALIS REVIVE® PE COM75LF1 H optimizes its processability and gives the products a favorable balance between processability and mechanical properties, making it suitable for the production of films intended for various uses in secondary or tertiary packaging (e.g. shrink films, bags, hoods, silage films).
VERSALIS REVIVE® PE COM75LF1 H is not suitable for the production of articles and materials intended for direct contact with food, the manufacture of toys or items for early childhood and in pharmaceutical, cosmetic and / or medical applications.

Main Properties

Resin Properties	Value	Unit	Test Method
Melt Flow Rate (190 °C/2.16 kg)	1.0	g/10min	ISO 1133
Melt Flow Rate (190 °C/5 kg)	-	g/10min	ISO 1133
Melt Flow Rate (190 °C/21.6 kg)	-	g/10min	ISO 1133
Density	0.921**	g/cm3	ISO 1183
Melting Point	95 ÷ 123	°C	Internal method
Brittleness temperature	<- 70	°C	ASTM D 746
Vicat softening point (1 kg)	92	°C	ISO 306/A
Color	Amber	-	Visual Method

Film Properties *	Value	Unit	Test Method
Tensile stress at yield MD	10	MPa	ISO 527-3
Tensile stress at yield TD	10	MPa	ISO 527-3
Tensile stress at break MD	32	MPa	ISO 527-3
Tensile stress at break TD	30	MPa	ISO 527-3
Elongation at break MD	420	%	ISO 527-3
Elongation at break TD	550	%	ISO 527-3
1% Secant modulus MD	220	MPa	ISO 527-3
1% Secant modulus TD	210	MPa	ISO 527-3
Elmendorf tear resistance MD	60	N/mm	ISO 6383-2
Elmendorf tear resistance TD	150	N/mm	ISO 6383-2
Impact resistance F50 (Dart Drop Test)	180	g	ISO 7765-1/A
Dynamic coefficient of friction (COF)	>0.5	-	ISO 8295
Haze	15	%	ISO 14782
Gloss, 45°	40	%	ASTM D 2457
Recommended film thickness	35 ÷ 150	micron	-

(*) Typical properties of an extruded film 180 °C -210 °C, BUR 3 and 70 µm thickness. The properties of the film are to be understood as typical and may vary according to the transformation conditions and the additive package.
(**) Base resin density.

Processing notes

VERSALIS REVIVE® PE COM75LF1 H is suitable to be transformed on blown film lines, preferably in coextrusion, into one or more internal layers and in a mixture with virgin polyethylene. The suggested melt temperature range is from 180 °C to 210 °C. The recommended thicknesses are from 35 to 150 microns. The percentages of use and the thicknesses must be evaluated according to the final characteristics of the application. If necessary, it is suggested to carry out a possible stove treatment of the granule or use suitable drying additives during the transformation.

Storage and Handling

VERSALIS REVIVE® PE COM75LF1 H is supplied in pellet form and may be conveyed and bulk fed through equipment designed for conventional pelletized polyethylene resin. As with all polymeric materials, it is necessary to prevent accumulation of the fines and dust particles that are contained in all polyethylene resins. These fines and dust particles can, under certain conditions, pose an explosion hazard. We recommend that the conveying system used be equipped with filters of adequate size, operated and maintained in such a manner to ensure that no leaks develop and earthed adequately. We further recommend that good housekeeping should be practiced throughout your facility. The product should be stored in dry conditions at temperatures below 50 °C and protected from sunlight. Improper storage can initiate degradation which results in odor generation, color changes and can have negative effects on the physical properties of the product. Before using this product, it is recommended to read and understand the relevant Safety Data Sheet.