

VERSALIS REVIVE® PE

COM75HF2

HDPE based compound

VERSALIS REVIVE® PE COM75HF2 is a HDPE based polyolefin compound containing 75% of post-consumer plastic from municipal waste separate collection, stabilizers and compatibilizers agents, allowing its use in high content technological applications.

Main Applications

COM75HF2 is indicated for the production of extruded packaging and manufactured articles for which sustainability is a primary value. COM75HF2 is to be used preferably in coextrusion, in one or more inner layers band in mixtures with virgin polyethylene for the production of secondary and tertiary packaging of industrial products, and the production of tubes and various profiles. The percentages of use (up to 100%) and thicknesses must be evaluated according to the final characteristics of the application. The product is not indicated for the production of articles and materials intended for direct contact with food and pharmaceutical and / or medical applications.

Main Properties

Resin Properties	Value	Unit	Test Method
Melt Flow Rate (190 °C/2.16 kg)	0.25	g/10min	ISO 1133
Melt Flow Rate (190 °C/5 kg)	-	g/10min	ISO 1133
Melt Flow Rate (190 °C/21.6 kg)	25	g/10min	ISO 1133
Density	0.950**	g/cm ³	ISO 1183
Melting Point	132	°C	Internal method
Brittleness temperature	<- 60	°C	ASTM D 746
Vicat softening point (1 kg)	125	°C	ISO 306/A
Film Properties *	Value	Unit	Test Method
Tensile stress at yield MD	-	MPa	ISO 527-3
Tensile stress at yield TD	-	MPa	ISO 527-3
Tensile stress at break MD	50	MPa	ISO 527-3
Tensile stress at break TD	45	MPa	ISO 527-3
Elongation at break MD	500	%	ISO 527-3
Elongation at break TD	650	%	ISO 527-3
1% Secant modulus MD	620	MPa	ISO 527-3
1% Secant modulus TD	750	MPa	ISO 527-3
Elmendorf tear resistance MD	20	N/mm	ISO 6383-2
Elmendorf tear resistance TD	40	N/mm	ISO 6383-2
Impact resistance F50 (Dart Drop Test)	90	g	ISO 7765-1/A
Dynamic coefficient of friction (COF)	-	-	ISO 8295
Haze	-	%	ISO 14782
Gloss, 45°	-	%	ASTM D 2457
Recommended film thickness	20 ÷ 100	micron	-

(*) Typical properties of an extruded film 180 °C - 210 °C, BUR 4 and thickness 50 micron. The properties of the film are to be understood as typical and may vary depending on the processing conditions and the additive package.

(**) Base resin density.

Processing notes

COM75HF2 can be processed by using conventional blown film equipment. A mixing screw and a flat or slightly increasing temperature profile, from 180°C to 210°C, are recommended. The best balance between processability and mechanical properties is achieved by using a die gap between 20 to 100 microns.

Storage and Handling

COM75HF2 is supplied in pellet form. This material may readily be conveyed and bulk fed through equipment designed for conventional pelletised polyethylene resin, provided the equipment is designed 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 practised 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 odour generation, colour 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.

Availability

Contact the versalis sales office nearest to you regarding availability and your specific application requirements.

Conformity declaration

Certificates of conformity are available upon request.

TECHNICAL SERVICE

Versalis S.p.A.
Piazza Boldrini, 1
20097 S.Donato Milanese, Italia
Tel. +39 02 520.32087
Fax +39 02 520.52052

Versalis International SA succursale française
Port 4531 Route des Dunes - BP 59
F-59279 Mardyck
Tel. : +3332823551

Versalis S.p.A.
Via Taliercio, 14
46100 Mantova, Italia
Tel. +39 0376 305667

HEADQUARTER

Versalis S.p.A.
Piazza Boldrini, 1
20097 S.Donato Milanese, Italia
Tel. +39 02 520.32087
Fax +39 02 520.52052

IMPORTANT: please consult the relevant safety data sheet for more detailed information. The information and data presented herein are to the best of our knowledge true and accurate but no warranty or guarantee, expressed or implied, is made nor is any liability accepted with respect to the use of such information and data.

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