

Technical Data Sheet

VERSALIS REVIVE® (PE) COM75HF2

HDPE based compound

VERSALIS REVIVE® PE COM75HF2 is a HDPE based polyolefin compound for blown film, blow moulding and extrusion, 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

VERSALIS REVIVE® PE COM75HF2 is indicated for the production of various films and packaging of industrial products. It is preferably to be used in coextrusion, in one or more internal layers and in a mixture with virgin polyethylene. The percentages of use (up to 100%) and the thicknesses must be evaluated according to the final characteristics of the application. The product is also suitable for blow moulding technology, preferably in coextrusion, in one or more internal layers and in a mixture with virgin polyethylene for the production of tanks for chemical products for industrial and household use, giving it a good stress cracking value.

VERSALIS REVIVE® PE COM75HF2 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)	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	20	MPa	ISO 527-3
Tensile stress at yield TD	26	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	600	%	ISO 527-3
1% Secant modulus MD	750	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	-
Environmental Stress Cracking Resistance (ESCR)	> 500 ***	h	ASTM D 1693(B)

(*) Typical properties of an extruded film 180 °C - 210 °C, BUR 4.5 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.

(***) 100% surfactant - Condition B.

Processing notes

VERSALIS REVIVE® PE COM75HF2 can be transformed on conventional blown film systems. The suggested melt temperature range is from 180 ° C to 210 ° C. The recommended thicknesses are from 20 to 100 microns. 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 COM75HF2 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.

Availability

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

Conformity declaration

The conformity declarations and the certifications are available upon request.

Technical Management Polietilene and Client Relationship

Center and South Europe and Americas

Versalis S.p.A.

Head Office
Piazza Boldrini, 1
20097 San Donato Milanese (MI) - Italy
tel. +39 02 52032087 + 39 02 52032190
tel. +39 02 52042005 + 39 02 52032319

Mantova
Via Taliercio 14 - 46100 Mantova (MN) - Italy
tel. +39 03 76305520 +39 03 76305741

North Europe and ROW

Versalis S.p.A.

4531 Route des Dunes - CS 20060 Mardyck 59279
Dunkerque - France
tel. +33 328235516

Duesseldorfer Str. 13
65760 Eschborn - Deutschland
tel +49 6196492249

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.

Versalis is available to provide the guaranteed values for each product on demand.