Biodegradable Polymers

Product Information

Version 3.0
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G-PM/PB

ecoflex® F Blend C1200

Certified compostable polyester for compostable film

® = ecoflex is a registered trademarks of BASF SE

Product description

ecoflex® F Blend C1200 is our biodegradable, statistical, aliphatic-aromatic copolyester. ecoflex® F Blend C1200 will biodegrade to carbon dioxide, water and biomass when metabolized by microorganisms in the soil or compost under standard conditions.

ecoflex® F Blend C1200 has properties similar to PE-LD because of its high molecular weight and its long chain branched molecular structure.

This product can also be offered as biomass balanced (BMB) grade. Due to the biomass balance approach the product properties do not change.

Certification of Compostability and Biodegradability

ecoflex® F Blend C1200 is certified for compostability under the most demanding global standards. ecoflex® F Blend C1200 can be biodegraded by microorganisms under industrial and home composting conditions as well as in agricultural soil (OK biodegradable SOIL mark certified by TÜV Austria). The biodegradation process in soil depends on the specific environment (climate, soil quality, population of microorganisms). Available certificates can be provided upon request.

Food Contact Status

Food contact certificates for ecoflex® grades including information about specific limitations and details concerning the food contact status for different regions can be obtained upon request via a local BASF representative or by contacting plastics.safety@basf.com. The suitability of the article for the application concerned must be ensured in each case by the person who places any finished food contact article on the market.

Form supplied and storage

ecoflex® F Blend C1200 is supplied as lens shaped pellets in 1t big bags or bulk containers. Temperatures during transportation and storage may not exceed 70 °C at any time. Storage time of unopened bags may not surpass 12 month at room temperature (23 °C).

Quality Control

ecoflex® F Blend C1200 is produced as a standard material in a continuous production process according to DIN EN ISO 9001. The melt volume rate, MVR, at 190 °C, 2.16 kg, according to ISO 1133 has been defined as specified parameter for quality control. A certificate can be provided with each lot number upon request. In order to obtain a high accuracy for the MVR measurement the granules should be dried for 6 hours at 70 °C using e. g. an electronic moisture analyser (e. g. Brabender Aquatrac plus). Other data given in our literature are typical values, which are not part of our product specification for ecoflex® F Blend C1200.

Applications

ecoflex® F Blend C1200 has been developed for the conversion to flexible films using a blown film or cast film process. Typical applications are packaging films, agricultural films and compost bags. In view of numerous factors influencing functionality and shelf life of ecoflex® films and finished articles made thereof these parameters have to be tested by the converters before utilisation.

ecoflex® F Blend C1200 exhibits an excellent compatibility to other biodegradable polymers e. g. in dry blends with polylactic acid, biodegradable aliphatic polyesters or starch compounds (e. g. ecoflex® F Blend, starch and additives). The processing of ecoflex® F Blend C1200 on extrusion lines depends on the formulation, the extrusion technology and processing conditions. Therefore trials are always recommended to assess the quality of the final product.

According to our experience predrying of ecoflex® F Blend C1200 prior to conversion is not required if more than 50 % of ecoflex® F Blend C1200 is used in the formulation keeping ecoflex® F Blend C1200 in the coherent phase. In this case ecoflex® F Blend C1200 contributes significantly to the performance of a formulation in processing and application.

Intellectual Property

It is the responsibility of those to whom we supply our products to ensure that any proprietary rights and existing laws and legislation are observed. Some uses of ecoflex® and product obtained by use of ecoflex® are subject of intellectual property rights. Purchase of ecoflex® does not entitle the buyer or any third to produce, offer or use any blends of ecoflex® protected under property rights and all their equivalents as listed here:

- EP-B 1656423
- EP-B 1838784
- EP-B 2707427

Typical basic material properties of ecoflex® F Blend C1200

Property	Unit	Test Method	ecoflex® F Blend C1200
Mass Density	g/cm³	ISO 1183	**1.25–1.27**
Melt Flow Rate MFR 190 °C, 2.16 kg	g/10 min	ISO 1133	**2.7 - 4.9**
Melt Volume Rate MVR 190 °C, 2.16 kg	ml/10 min	ISO 1133	**2.5 - 4.5**
Melting Point	°C	DSC	**110 - 120**
Shore D Hardness	–	ISO 868	**32**
Vicat VST A/50	°C	ISO 306	**91**

Typical properties of ecoflex® F Blend C1200 blown film, 50 µm

Property	Unit	Test Method	ecoflex® F Blend C1200
Transparency	%	ASTM D 1003	**82**
Tensile strength MD/TD	N/mm²	ISO 527	**35/44**
Elongation at break MD/TD	%	ISO 527	**560/710**
Dart Drop	g	ASTM D 1709-04 Method B	**600**
Oxygen (23 °C, dry)	cm³/(m²·d·bar)	ASTM D 3985	**1200**
Water Vapour (23 °C, 85 % r.h.)	[g/(m²·d)]	ASTM F-1249	**135**

Note

The information submitted in this document is based on our current knowledge and experience. In view of the many factors that may affect processing and application, these data do not relieve processors of the responsibility of carrying out their own tests and experiments; neither do they imply any legally binding assurance for a special purpose. It is the responsibility of those to whom we supply our products to ensure that any proprietary rights and existing laws and legislation are observed. (November 2025)

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