



Biodegradable Polymers

Product Information

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ecoflex[®] Batch SL05

**Masterbatch with slip agent erucamide for ecoflex[®] and ecovio[®] –
The biodegradable Polymers for compostable film**

® = Registered trademark of BASF SE

Product description

ecoflex[®] F Blend C1200 is our biodegradable, statistical, aliphatic-aromatic copolyester based on the monomers 1,4-butanediol, adipic acid and terephthalic acid for film extrusion. Our ecovio[®] F Film and ecovio[®] F Blend products are basically compounds of ecoflex[®] F Blend and polylactic acid (PLA) produced with various contents of renewable resources. Detailed information on ecoflex[®] and ecovio[®] are available in our product brochure and our technical product data sheets.

ecoflex[®] Batches are based on ecoflex[®], because the regulations for biodegradable plastics limit the use of a non-biodegradable polymer within biodegradable plastics to max. 1%. In order to obtain a certificate for articles made of ecoflex[®] F Blend C1200 we have to meet the requirements of the DIN EN 13432, ASTM D 6400 or the Japanese GreenPla standard. Masterbatches based on ecoflex[®] will enable you to qualify your application for certificates according to these specific standards.

 **BASF**
The Chemical Company

Slip agents are primarily used together with antiblocking agents ecoflex® Batch AB to reduce the surface friction during film extrusion of ecoflex® F Blend or ecovio® F Film and in subsequent processes as printing or bag making. In any application we need to add an antiblocking agent e. g. ecoflex® Batch AB1. The fatty acid amide, Erucamide is a very effective slip agent added during film extrusion. During the cooling phase of the extruded film the amide molecules migrate to the film surface to form a thin lubricant layer:

Batch	Agent	Content	Dosage
ecoflex® Batch SL 05	Erucamide	5%	1-4%

The second reason to use a slip agent is to reduce the water vapour permeability of ecoflex® films. 1% ecoflex® Batch SL 05 is the minimum slip level in ecoflex® film. It has a high water vapour permeability of 86 g/m² · d measured according to DIN 53122. A very high amount of slip Agent SL 05 of 5 % results in a reduction of the water vapour permeability by 35%. An additive system with 30% fine chalk (50% AB1) and 2% SL 05 reduces the water vapour permeability by 60% versus the original level with 1% SL 05.

Before printing with alcohol based inks it is not necessary in most cases to use corona treatment if ecoflex® Batch SL 05 is used.

ecoflex® F Blend or ecovio® F Film exhibits an excellent compatibility to other biodegradable polymers e. g. in dry blends with polylactic acid, biodegradable aliphatic polyesters or starch compounds. The processing of ecoflex® F Blend C1200 or ecovio® F Film on extrusion lines depends on the formulation, the extrusion technology and processing conditions (e. g. predrying). The additive system needs to be adapted to the composition of the blend and the requirements of the application. Therefore trials are always recommended to assess the quality of the final product.

In general the choice and dosage of the slip agents depends on the requirements of the application, the composition of the blend as well as the machinery being used. Examples for different film formulations can be obtained from our actual ecoflex® and ecovio® brochure. They should only serve as starting points for first trials. Individual recommendations can be obtained directly from the ecoflex®-Team of BASF upon request.

Form supplied and storage

ecoflex® slip masterbatches are supplied as pellets in 25 kg bags. Temperatures during transportation and storage may not exceed 70 °C at any time.

Quality Control

ecoflex® slip masterbatches are produced on state of the art compounding machines according to DIN EN ISO 9001:2000. The density and the moisture content have been defined as specified parameters for quality control of ecoflex® slip masterbatches. A certificate can be provided with each lot number upon request. Other data given in our literature are typical values, which are not part of our product specification for ecoflex® slip masterbatches.

Applications

ecoflex® F Blend C1200 and our ecovio® F Film products have 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® or ecovio® films and finished articles made thereof these parameters have to be tested by the converters before utilisation.

We supply technical service information concerning the blown or cast film process with ecoflex®, ecovio® and ecoflex® masterbatches on demand.

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.