



BioComp[®]
Green Plastics



BioComp[®]
Green Plastics



From Nature to BioComp[®]

BioComp[®] is an innovative family of bioplastics made with components natural in origin utilizing biodegradable polymers obtained from both renewable materials and fossil fuel. Biodegradability and compostability of BioComp[®] is unchanged by the use of plasticizers and the addition of organic and inorganic charges (such as plant fibers, cellulose, lignin, talc...).



General Information

All BioComp[®] formulations are made from polymeric resins extracted both from biomass and from synthetic polymers made from bio-derived monomers and microorganisms.

The major advantages of bioplastics BioComp[®] are:

- ❖ Very high content of natural (renewable) resource raw materials
- ❖ Outstanding mechanical properties (similar to LDPE and EVA depending on the grade)
- ❖ Wide processing window
- ❖ Processable on standard extrusion machinery with an high throughput
- ❖ Printability without corona treatment
- ❖ Colorability guaranteed through the average bio-based masterbatches
- ❖ BioComp[®] is obtaining the "OK Compost" certification under Belgian Body VINCOTTE AIB, which is a recognized brand from AFNOR and LNE. This brand ensures the absence of heavy metals and harmful substances in all BioComp[®] formulations. An excellent disintegration of the manufactured products and the ecotoxicity of the humus are assured and certified. The biodegradability of at least 90% is guaranteed within six months.



For more information please contact:

MICROTEC S.r.l.
Offices and warehouse : Via Po, 53/55
30030 Pianiga (VE), ITALY

Tel +39.041.5190621
Fax +39.041.5194765
E-mail: info@microtecsrl.com



www.mastercolour.eu
www.biocomp.it

Operating Advice

Overheating of products should be avoided. Before production, make sure that all temperature zones work correctly. Do not allow material to remain hot inside the extruder for extended periods as the material can degrade. Therefore, do not heat products over 180°C for long times and do not over 160°C when machine is not running. In case the machine used to run with other materials, in particular high melting synthetic polymers, it is recommended to use a correct transition thermoplastic polymer (low melting EVA or LDPE type) and then reduce the temperature gradually to the required setting. The extruder can be usually purged for 10-20 minutes with low melting thermoplastic polymers using the above temperature settings. All BioComp® formulations are compatible with most of the chain extenders and various colour masterbatches.

To enhance processing features, common anti-blocking and slip additives (made of biodegradable polyesters and poly lactic acid) can be used anyway.

Pre-Treatment

All BioComp® formulations are characterized by moisture which is enable to melt and ensure the flow propeties during processing.

Important: do not pre-dry BioComp® resins before processing.



For more information please contact:

MICROTEC S.r.l.
Offices and warehouse : Via Po, 53/55
30030 Pianiga (VE), ITALY

Tel +39.041.5190621
Fax +39.041.5194765
E-mail: info@microtecsrl.com



www.mastercolour.eu
www.biocomp.it



BioComp[®]
Green Plastics



BioComp[®]
Green Plastics



BioComp BF 3051



Processing

Parameters	Values
Feed zone temperature	130°C
Melt zone temperature	140-150°C
Die temperature	130-145°C
Maximum temperature	170-180°C
Melt temperature	140-150°C

Notes

The information reported in this datasheet should be considered for general guideline in BioComp[®] BF 3051 processing. Fine tuning the film blowing process may be needed to obtain the optimum process parameters.

BioComp[®] BF 3051 is an innovative type of bioplastic designed primarily for film blowing. BioComp[®] BF 3051 is processable on all conventional extrusion film blowing or casting lines with standard screw settings. Preferred screw design is a PE type.

This formulation does not contain starch.



Application

BioComp[®] BF 3051 is an end compound suitable for film blowing applications and is specially developed for carrier bags. BioComp[®] BF 3051 is a good and sustainable alternative for PE bags and is a competitive alternative for currently used biodegradable plastic bags.



For more information please contact:

MICROTEC S.r.l.
Offices and warehouse: Via Po, 53/55
30030 Pianiga (VE), ITALY

Tel +39.041.5190621
Fax +39.041.5194765
E-mail: info@microtecsrl.com



www.mastercolour.eu
www.biocomp.it



BioComp[®]
Green Plastics



Technical Information

Classification Test Items	Test Method	Unit	Results
Density	D792	g/cm ³	1.3
Apparent viscosity (180°C, 100 sec-1)	D3835	Pa·s	400
Coefficient of Friction	D1894		0.25
Melting Point		°C	160
Dart Impact Resistance	D1709	g/mil	150
Elmendorf Tear Resistance	D1922	MD g/mil	160
Elmendorf Tear Resistance	D1922	TD g/mil	650
Tensile Strength	D882	MPa	25
Tensile Strength	D882	MPa	22
Tensile Elongation	D882	Break MD, %	250
Tensile Elongation	D882	Break TD, %	450



Packaging

All BioComp[®] BF 3051 resins are supplied in the form of granules in box of 750 Kg.



Storage

Changes in moisture content (either loss or gain depending on atmospheric conditions) should be avoided during longer term storage. BioComp[®] BF 3051 should be stored in closed packaging in a cool, dry place out of direct sunlight. During production, open bags must be avoided for a period longer than 5-6 hours.



For more information please contact:

Autotech-Sirmax India Pvt. Ltd.
Tipco Plaza, Rani Sati Marg, Malad East,
Mumbai - 400097. India
Ph: +91 9991 99502
Email: biocomp@autotechsirmax.in
www.biocomp.in