

 **Geofiber**[®]
MICROFIBERS

**cellulose & polyamide special effect filaments
for plastics**

Geofiber® polyamide and cellulose filaments for plastics

Geofiber® microfibers are very fine, thin polyamide and cellulose based fiber particles offering special effects for a wide variety of plastic applications. Microfibers are being used as a decorative additive in different types of master batches (PP, PE and ABS). Well known applications are household equipment's such as coffee machines, waste baskets and electric razors.

Compared to glitter flakes, microfibers provide more matte, sophisticated marble effects. The product range contains six shades: black, brown, red, yellow, green and blue.

Geofiber® microfibers have a particle size of +/- 500 micron (0,5 mm). Two thicknesses are available: 17 micron and 38 micron.

The main characteristics of these fibers are high temperature and good solvent resistance. Geofiber® Black complies to the FDA regulations for indirect food contact and can be used for food grade plastic applications.

Product benefits

- High temperature resistance
- In compliance with regulations for plastics
- Geofiber® Black complies to the FDA regulations for indirect food contact
- Geofiber® PA; all colours comply to the FDA regulations for indirect food contact

Applications

We recommend to use this product line for the following application:



Masterbatch



The effect

Geofiber® microfibers are coloured particles based on either polyamide or cellulose.




Very much like textile spinning, a so called TOW (bundle of long strands of fiber) is cut by a guillotine blade resulting in the separate particles (length determination). After a classification check (sieving) the particles obtain their final visual color through a dyeing process.



Cellulose microfibers


Geofiber® cellulose microfibers are available in six shades and 2 diameters. The Geofiber CL grade is a dried version packed in vacuum bags.

Art. nr.	Product name	Effect	
1909905	Geofiber Black 500 x 17 micron	Small black fibers	●
1909915	Geofiber Brown 500 x 17 micron	Small brown fibers	●
1909925	Geofiber Red 500 x 17 micron	Small red fibers	●
1909935	Geofiber Green 500 x 17 micron	Small green fibers	●
1909945	Geofiber Blue 500 x 17 micron	Small blue fibers	●
1909955	Geofiber Yellow 500 x 17 micron	Small yellow fibers	●
1909900	Geofiber Black 500 x 38 micron	Medium black fibers	●
1909910	Geofiber Brown 500 x 38 micron	Medium brown fibers	●
1909920	Geofiber Red 500 x 38 micron	Medium red fibers	●
1909930	Geofiber Green 500 x 38 micron	Medium green fibers	●
1909940	Geofiber Blue 500 x 38 micron	Medium blue fibers	●
1909950	Geofiber Yellow 500 x 38 micron	Medium yellow fibers	●
1909912	Geofiber Brown CL 500 x 38 micron	Medium brown fibers	●
1909921	Geofiber Red CL 500 x 38 micron	Medium red fibers	●
1909942	Geofiber Blue CL 500 x 38 micron	Medium blue fibers	●



Polyamide microfibers

Geofiber® polyamide microfibers are available in three shades and 2 diameters.

Art. nr.	Product name	Effect	
1909906	Geofiber Black PA 500 x 17 micron	Small black fibers	●
1909926	Geofiber Red PA 500 x 17 micron	Small red fibers	●
1909946	Geofiber Blue PA 500 x 17 micron	Small blue fibers	●
1909902	Geofiber Black PA 500 x 38 micron	Medium black fibers	●
1909922	Geofiber Red PA 500 x 38 micron	Medium red fibers	●
1909941	Geofiber Blue PA 500 x 38 micron	Medium blue fibers	●



General formulation do's and don'ts

Hygroscopic

Cellulose fibers are hygroscopic and will absorb moisture, which might result in steam production during processing.

Temperature resistance

Temperature resistance of Geofiber® is tested in Polypropylene 1% pigment, processed in a single screw injection chipping machine at a temperature of 200°C and 230°C.

Although Geofiber® colours has endured exposure up to 200°C with no apparent loss of colour or reflective quality, the actual limit of resistance is dependent upon dwell time, mixing abrasion and ambient process temperature. Geofiber® PA Black is stable up to 230°C.

Solvent resistance

Geofiber® microfibers are resistant against the following solvents: 2-butanone, acetone and ethyl acetate .

Lightfastness according to ISO 105-B (Blue Wool scale);

Geofiber® Black have a light fastness of 6-7 on the Blue Wool scale.

Colourants used in other Geofiber® products may fade with exposure to UV and sunlight, no data has established yet.



Finished product	Level of use (recommendation)
Masterbatch	10 - 20 %



Formulation guidelines | Plastic chip samples

Product: Plastic chip samples
 Code: GLP-201203
 Special effect pigment: Geofiber Blue PA 500 x 17 micron | Geofiber Blue PA 500 x 38 micron

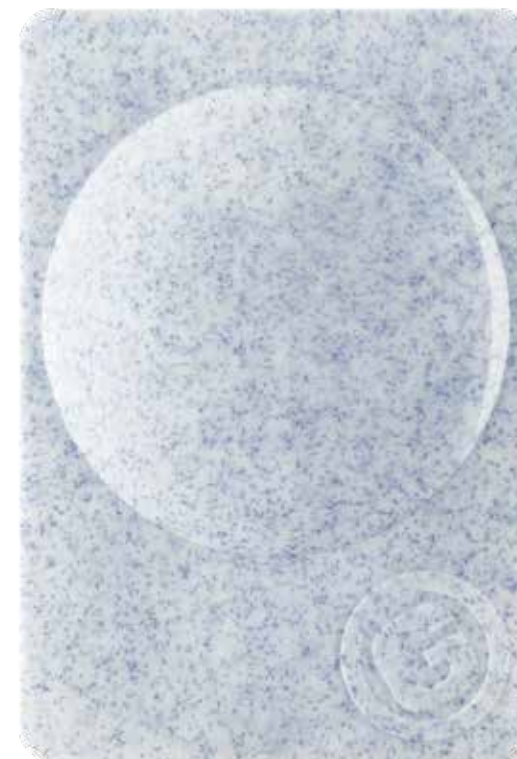
Product name	% WT.	Supplier
Plastic chip 1		
Geofiber Blue PA 500 x 17 micron	0.50	Geotech International B.V.
Braskem Inspire 382 (Clear PP)	97.50	Braskem Netherlands B.V.
Maxxam 25 T/30 WHITE 70 (MB white)	2.00	Avient Corporation
Plastic chip 2		
Geofiber Blue PA 500 x 38 micron	0.50	Geotech International B.V.
Braskem Inspire 382 (Clear PP)	97.50	Braskem Netherlands B.V.
Maxxam 25 T/30 WHITE 70 (MB white)	2.00	Avient Corporation

Procedure

These chips are manufactured by dry mixing of components using a BOY25E injection moulding machine.

We recommend to incorporate our special effect pigments into a masterbatch for optimum results.

Samples of the chips are available upon request.



Formulation guidelines | Plastic chip samples

Product: Plastic chip samples
 Code: GLP-201204
 Special effect pigment: Geofiber Black PA 500 x 17 micron | Geofiber Black PA 500 x 38 micron

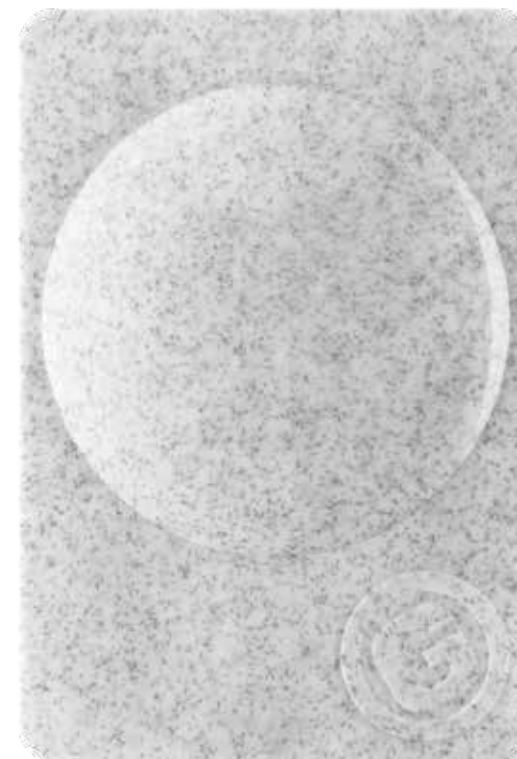
Product name	% WT.	Supplier
Plastic chip 1		
Geofiber Black PA 500 x 17 micron	0.50	Geotech International B.V.
Braskem Inspire 382 (Clear PP)	97.50	Braskem Netherlands B.V.
Maxxam 25 T/30 WHITE 70 (MB white)	2.00	Avient Corporation
Plastic chip 2		
Geofiber Black PA 500 x 38 micron	0.50	Geotech International B.V.
Braskem Inspire 382 (Clear PP)	97.50	Braskem Netherlands B.V.
Maxxam 25 T/30 WHITE 70 (MB white)	2.00	Avient Corporation

Procedure

These chips are manufactured by dry mixing of components using a BOY25E injection moulding machine.

We recommend to incorporate our special effect pigments into a masterbatch for optimum results.

Samples of the chips are available upon request.



Available packaging

Geofiber® microfibers

Nett weight	Gross weight	Package size L x W x H
20 kg	22 kg	

Packed in a plastic bag in cardboard box

Shelf life

10 years original packaging in a closed box under dry conditions.

Samples

Approx. 50 grams samples are available free of charge.

Product data

Product data sheets and additional technical product information are available online. To get access please send an email to marketing@geotech.nl and ask for an account.



About us

Geotech International B.V., based in Haarlem, The Netherlands, is a dynamic company focusing on the development, production and distribution of special effect pigments. The owners family has a background in the industry with over 40 years of experience. Since 1999 the company is managed by the third generation.

GEOTECH's special effect pigments are being used globally in the cosmetics, plastics, coatings & paints, printing and arts & crafts industry.

Disclaimer

All information and samples provided by GEOTECH are given in good faith and without warranty. Our advice does not release you from the obligation to verify the information provided and to test our products as to their suitability for the intended processes and uses. The application, use and processing of our products and the products manufactured by you on the basis of our technical advice are beyond our control and therefore entirely your own responsibility.



Geotech International B.V.
P.O. Box 1578
2003 BP Haarlem
The Netherlands

T: +31(0)235317553
E: info@geotech.nl
URL: geotech.nl



REV0 02.12.2021

© 2021 GEOTECH. All rights reserved.

