



Geoflake®
GLITTERING MICA FLAKES

**plastic free glitter effects for
coatings & paints**

Environmental-friendly alternative for polyester glitter

The innovative product range Geoflake® is developed by GEOTECH as a sustainable alternative for polyester glitter.

The basic structure of Geoflake® is a coarse, ultra-thin platelet of coated synthetic mica. The new range consists of synthetic mica flakes coated with titanium dioxide, iron oxide and colourants.

The Geoflake® range contains a stunning amount of 15 products. Silver, White, Red Gold, Royal Blue, Green, Lavender, Salmon and Rainbow are the eight colours available in two different particle sizes. The available sizes are XL, with an average of 350 micron and XXL, with an average of 750 micron.

The narrow particle size distribution achieved by an innovative production process makes Geoflake® products unique. It creates an optical effect which is similar to precision cut polyester glitter.

Geoflake® glittering mica flakes are non-toxic and comply to the main regulations. The titanium dioxide and iron oxide coated Geoflake products are UV, water- and solvent resistant.

Product benefits

- Environmental friendly compostable particles
- Polyethylene Terephthalate free material
- Traditional glitter effect
- In compliance with global regulations for coatings & paints

Applications

We recommend this product line for the following application:



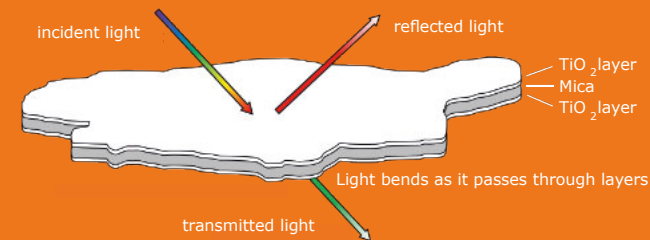
Decorative paints



Cast flooring



The effect

The colour of the Geoflake® pigments is obtained by interference, a phenomenon that occurs when visible light passes through thin layers with different refractive indices.




Synthetic mica is the base for our Geoflake® pigments and has a lamellar structure which is perfect for obtaining the interference effect. The transparent flakes are coated on all sides with a thin layer of titanium dioxide and/or iron oxide, effectively helping to reflect and bend the light. The coloured Geoflake pigments have additional colourants added to the surface.



Art. nr.	Product name	Particle size	Effect		
1950008	Geoflake Crystal Silver XL	200 – 500 micron	Bright glittering silver	●	●
1950007	Geoflake Crystal White XL	200 – 500 micron	Flashing glittering white	●	●
1950507	Geoflake Crystal White XXL	500 – 1000 micron	Flashing scattering white	●	●
1950006	Geoflake Crystal Rainbow XL	200 – 500 micron	Dazzling glittering interference	●	●
1950506	Geoflake Crystal Rainbow XXL	500 – 1000 micron	Dazzling scattering interference	●	●
1950005	Geoflake Crystal Red Gold XL	200 – 500 micron	Intense glittering gold	●	●
1950505	Geoflake Crystal Red Gold XXL	500 – 1000 micron	Intense scattering gold	●	●
1950001	Geoflake Crystal Salmon XL	200 – 500 micron	Vivid glittering salmon	●	●



Art. nr.	Product name	Particle size	Effect	
1950501	Geoflake Crystal Salmon XXL	500 – 1000 micron	Vivid scattering salmon	●
1950004	Geoflake Crystal Lavender XL	200 – 500 micron	Brilliant glittering lavender	●
1950504	Geoflake Crystal Lavender XXL	500 – 1000 micron	Brilliant scattering lavender	●
1950003	Geoflake Crystal Royal Blue XL	200 – 500 micron	Beaming glittering blue	●
1950503	Geoflake Crystal Royal Blue XXL	500 – 1000 micron	Beaming scattering blue	●
1950002	Geoflake Crystal Green XL	200 – 500 micron	Blazing glittering green	●
1950502	Geoflake Crystal Green XXL	500 – 1000 micron	Blazing scattering green	●



General formulation do's and don'ts

Avoid high shear or grinding

The synthetic fluorophlogopite based Geoflake® glittering mica flakes are available in the sizes XL, with an average of 350 micron and XXL, with an average of 750 micron. Synthetic Fluorophlogopite is composed of magnesium aluminum silicate sheets, weakly bound together. Surfaces held together by relatively weak bonds will tend to break more easily than those held together by strong bonds. High shear and grinding can break the large Geoflake® particles into smaller pieces. For improved handling pre-wetting the pigments is recommended by making a premix in vehicle (oils or solvents) under slow stirring conditions.

Colourants might bleed

To obtain the strong and vibrant Geoflake® Crystal Royal Blue, Geoflake® Crystal Green, Geoflake® Crystal Lavender and Geoflake® Crystal Salmon colourants are used. Colourants might bleed. "Bleeding" or "Migrating" refers to a colour which tends to migrate over from one place to another. It is a common problem for colourants when used in water based formulations like gels, emulsions, creams or lotions. The Geoflake® Crystal Silver, Geoflake® Crystal White, Geoflake® Crystal Red Gold and Geoflake® Crystal Rainbow contain inorganic pigments and therefore do not bleed or migrate in water based formulations.

High oil absorption

Geoflake® glittering mica flakes have a high oil absorption. The oil absorption of a pearlescent pigment is a practical measure of the surface and particle shape of the pigment. In general it is the amount of oil that it takes to saturate 100g of the pearlescent pigment. The larger the material's surface area the higher the oil absorption value of the pigment and the more binder it will require to bind it. Also here: for improved handling pre-wetting the pigments is recommended by making a premix in vehicle (oils or solvents) under slow stirring conditions.

UV stability

The Geoflake® glittering mica flakes which contain organic colourants are sensitive to UV light.

Finished product	Level of use (recommendation)
Decorative coatings	10 - 15 % (topcoats 1 - 3 %)
Cast flooring	1 - 10 %



Summary

The stability results are formulation specific even within a particular application. The order of addition and the combination of other ingredients may impact the stability of the Geoflake® glittering mica flakes in an emulsion or water containing system. It is recommended to keep the homogenization times to a minimum.

The titanium dioxide and iron oxide coated Geoflake® products are UV, water- and solvent resistant. The coloured Geoflake products are more sensitive, depending on the application.



Available packaging

Nett weight	Gross weight	Package size L x W x H
5 kg	6 kg	35 x 18 x 21 cm
25 kg	27 kg	37 x 37 x 45 cm

Packed in a plastic bag in a cardboard box.

Shelf life

10 years in original packaging stored 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.



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SPECIAL EFFECT PIGMENTS

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