
GEOTECH
SPECIAL EFFECT PIGMENTS
Geoflake®
GLITTERING MICA FLAKES

Geoflake: Plastic free alternative for polyester glitter

Geoflake®

GLITTERING MICA FLAKES

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 for cosmetics. Some colour coated flakes have a few restrictions in certain areas due to the used colourants. The titanium dioxide and iron oxide coated Geoflake® products are UV, water- and solvent resistant. The coloured Geoflake® products are a bit more sensitive, depending on the application some special attention is required.

Product benefits

- Sustainable PET free glitter flakes
- Smooth skin and nail feel thanks to 2 micron thin particles
- Controlled unique narrow particle size distribution
- Endless styling flexibility

Recommended applications


- Nails


- Eye area


- Lip area


- External


- Rinse off

Art. Nr.	Product Name	Particle size (µm)	INCI Name
1950008	Geoflake Crystal Silver XL	200 - 500	Synthetic Fluorphlogopite | Titanium Dioxide | Tin Oxide
1950007	Geoflake Crystal White XL	200 - 500	Synthetic Fluorphlogopite | Titanium Dioxide
1950507	Geoflake Crystal White XXL	500 - 1000	Synthetic Fluorphlogopite | Titanium Dioxide
1950006	Geoflake Crystal Rainbow XL	200 - 500	Synthetic Fluorphlogopite |Titanium Dioxide | Tin Oxide
1950506	Geoflake Crystal Rainbow XXL	500 - 1000	Synthetic Fluorphlogopite | Titanium Dioxide | Tin Oxide
1950005	Geoflake Crystal Red Gold XL	200 - 500	Synthetic Fluorphlogopite | Titanium Dioxide | CI 77491
1950505	Geoflake Crystal Red Gold XXL	500 - 1000	Synthetic Fluorphlogopite | Titanium Dioxide | CI 77491
1950001	Geoflake Crystal Salmon XL	200 - 500	Synthetic Fluorphlogopite | Titanium Dioxide | Tin Oxide | CI 16035
1950501	Geoflake Crystal Salmon XXL	500 - 1000	Synthetic Fluorphlogopite | Titanium Dioxide | Tin Oxide | CI 16035
1950004	Geoflake Crystal Lavender XL	200 - 500	Synthetic Fluorphlogopite | Titanium Dioxide | Tin Oxide | CI 45410 | CI 42090
1950504	Geoflake Crystal Lavender XXL	500 - 1000	Synthetic Fluorphlogopite | Titanium Dioxide | Tin Oxide | CI 45410 | CI 42090
1950003	Geoflake Crystal Royal Blue XL	200 - 500	Synthetic Fluorphlogopite | Titanium Dioxide | Tin Oxide | CI 42090
1950503	Geoflake Crystal Royal Blue XXL	500 - 1000	Synthetic Fluorphlogopite | Titanium Dioxide | Tin Oxide | CI 42090
1950002	Geoflake Crystal Green XL	200 - 500	Synthetic Fluorphlogopite | Titanium Dioxide | Tin Oxide | CI 42090 | CI 19140
1950502	Geoflake Crystal Green XXL	500 - 1000	Synthetic Fluorphlogopite | Titanium Dioxide | Tin Oxide | CI 42090 | CI 19140

Ordering information

Available packaging

- 5 kg Nett weight
- 25 kg Nett weight

Shelf life

- 120 months 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 on www.geotech.nl

GENERAL FORMULATION DO'S AND DON'TS

Avoid high shear or grinding

The synthetic fluorphlogopite 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 Fluorphlogopite 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-wet the pigments by creating a premix in a vehicle (such as 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 its surface area and particle shape. Generally, it is defined as the amount of oil required to saturate 100g of the pearlescent pigment. A larger surface area results in a higher oil absorption value for the pigment, and consequently, more binder will be needed to bind it effectively.

UV stability

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

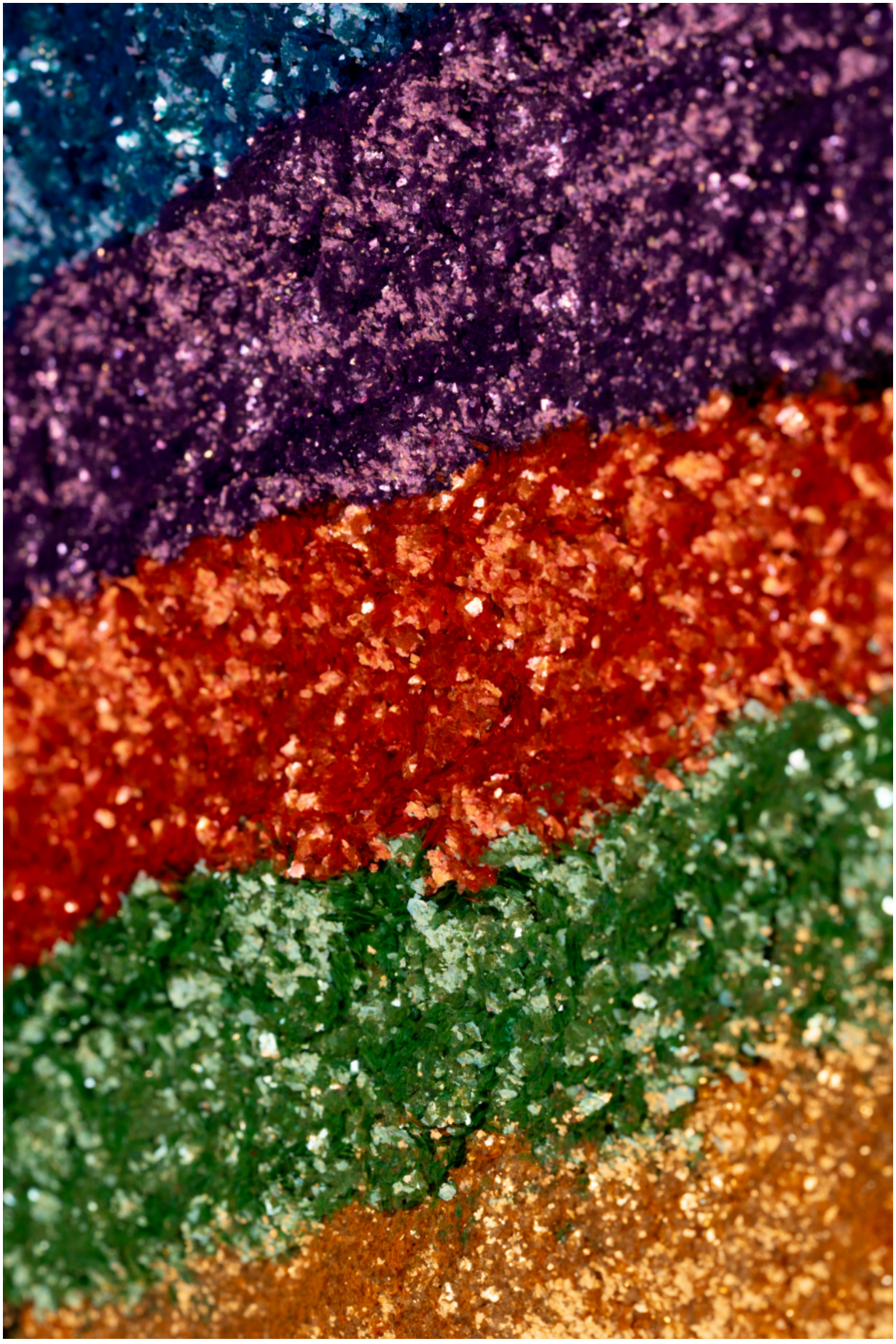
Finished product	Recommended level of use
Hair styling gel	0,01 - 0,1 %
Shower gel	0,01 - 0,1 %
Eye shadow gel	15 - 20 %
Skin gel	0,05 - 0,1 %
Loose powder	Up to 100 %
Lipstick	12 - 20 %
Lipbalm / gloss	3 - 5 %
Lip Lacquer	10 - 15 %
Nail polish	1 - 5 %
Shampoo	0,1 - 1 %

Product:	**Lip gloss**
Code:	**GL-200910**
Special effect pigment:	**Geoflake Crystal Red Gold XL | Geoflake Crystal Lavender XL | Geoflake Crystal Green XL | Geoflake Crystal Salmon XL | Geoflake Crystal Royal Blue XL**

Product name	INCI name	%WT.	Supplier
Phase A			
Versagel ME 750	Hydrogenated Polyisobutene (and) Ethylene | Propylene | Styrene Copolymer (and) Butylene | Ethylene | Styrene Copolymer	66.90	Calumet Penreco
Jojoba Oil	Simmondsia Chinensis (Jojoba) Seed Oil	2.20	Sigma Oil Seeds
Caprylyl Trimethicone	Caprylyl Trimethicone	7.80	
Stearyl Dimethicone	Magnesium Aluminium Silicate	3.60	Vanderbilt Minerals LLC
Nexbase 2002	Hydrogenated Polydecene	4.50	Neste Oil
Crodamol IPM	Isopropyl	5.00	Croda
Phase B			
Geoflake Crystal Red Gold XL	Synthetic Fluorphlogopite | Titanium Dioxide | CI 77491	2.00	Geotech International B.V.
Geoflake Crystal Lavender XL	Synthetic Fluorphlogopite | Titanium Dioxide | Tin Oxide | CI 45410 | CI 42090	2.00	Geotech International B.V.
Geoflake Crystal Green XL	Synthetic Fluorphlogopite | Titanium Dioxide | Tin Oxide | CI 42090 | CI 19140	2.00	Geotech International B.V.
Geoflake Crystal Salmon XL	Synthetic Fluorphlogopite | Titanium Dioxide | Tin Oxide | CI 16035	2.00	Geotech International B.V.
Geoflake Crystal Royal Blue XL	Synthetic Fluorphlogopite | Titanium Dioxide | Tin Oxide | CI 42090	2.00	Geotech International B.V.

Procedure

1. Combine all ingredients from phase A and heat to 85°C;
2. Add phase B to phase A and mix until homogeneous;
3. Pour into lip gloss container.



ABOUT US

Geotech International B.V., founded in 1984, manufactures and distributes special effect pigments. We are a privately owned family business with offices in The Netherlands, France and Turkey. A global sales network serves over 800 customers worldwide with 16 product lines.

Nowadays the company is managed by the third generation, focusing on innovation and sustainability. GEOTECH's sustainability program has been recognized by EcoVadis for its success, consistently placing us among the top-rated companies they assess. A certified quality management system based on ISO 9001 and GMP standards ensures reliability and excellence.

With over 450 special effect pigments in our portfolio we offer a diverse range of products for the cosmetics industry. An experienced team of specialists is available to provide you with a high level of service and technical support.

GEOTECH's special effect pigments are used globally in various industries to differentiate consumer products by creating attractive and luxurious appearances.

Formulations

Visit **www.geotech.nl/inspiration** to explore a variety of formulations developed by our cosmetic chemists using our special effect pigments. Each formulation undergoes rigorous testing to ensure exceptional performance.

If you have a specific formulation in mind, we have a large database of formulations available to our clients, let us know what you are looking for. We are ready to help you bring your vision to life.

Explore our complete porfolio for the cosmetics industry at www.geotech.nl

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