



Geoparl[®]
PEARLESCENT PIGMENTS

conventional natural mica pearlescent pigments for plastics

Traditional mica based pearlescent pigments

Geopearl® pearlescent pigments create an infinite range of visual effects that capture your eyes and give unrivalled elegance to plastic products. The extensive portfolio contains over 75 natural mica based pearlescent pigments which provide luxury to coloured plastic products.

Geopearl® pigments are used worldwide in plastic applications such as extrusion, co-extrusion and injection chipping. These special effect pigments are mainly incorporated into colour concentrates, named masterbatches, to give colour and effect to various types of plastics such as PVC, PE, PC, PMMA, PS, ABS and PP.

The characteristic shimmer of Geopearl® has been designed to match the unique lustre of natural pearls. The basic structure is a platelet of mica which is coated with a metal oxide. We offer titanium dioxide and iron oxide coated pearlescent pigments.

Resulting from reflected, refracted and transmitted light patterns developed at the multiple interfaces between the layers, Geopearl® pearlescent pigments provide unsurpassed performance in brightness and colour play.

Product benefits

- Batch to batch consistency
- Wide product range with > 75 products
- In compliance with regulations for plastics; including food contact.

Applications

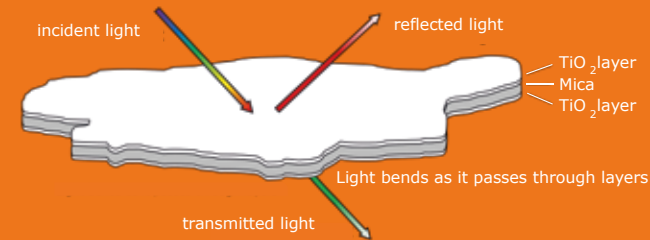
We recommend to use this product line for the following application:



Masterbatch

The effect

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




Natural mica is the base for our Geopearl® 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.



Silver/White pigments

A range of brilliant silver/white pigments in a variety of particle sizes, ranging from 1 – 15 micron up to 50 – 500 micron. Depending on their particle size and composition these pigments provide different lustrous effects ranging from soft/satin to twinkling. The Geoparl WX30 range is a wax based granulate for easy incorporation into plastic master batches.


Art. nr.	Product name	Particle size	Effect	
1117000	Geoparl Soft Silver I	1 – 15 micron	Silver/white satin lustre	●
1117010	Geoparl Silk Silver I	5 – 25 micron	Silver/white silk lustre	●
1117020	Geoparl Silver I	10 – 60 micron	Silver/white lustre	●
1117060	Geoparl Extra Bright Silver I	30 – 100 micron	Silver/white bright	●
1117070	Geoparl Sparkling Silver I	20 – 150 micron	Silver/white sparkling	●
1117075	Geoparl Extra Sparkling Silver I	40 – 200 micron	Silver/white sparkling	●
1117072	Geoparl Glittering Silver I	20 – 250 micron	Silver/white glittering	●
1117090	Geoparl Twinkling Silver I	50 – 500 micron	Silver/white twinkling	●
1148000	Geoparl Silk Silver I WX30	granulate micron	Silver/white silk lustre	●
1148010	Geoparl Silver I WX30	granulate micron	Silver/white lustre	●



● Recommended

Interference pigments

The portfolio of interference pigments contains a variety of colours in particle sizes of 5 – 25 micron, 10 – 60 micron and 10 – 100 micron. It allows formulators to create subtle silk effects with high hiding power up to bright interference effects in combination with transparency. Geoparl interference pigments can be combined with other pigments to create an endless variety of shades.

Art. nr.	Product name	Particle size		Effect	
1127405	Geoparl Silk Gold I	5 – 25	micron	Interference silk gold lustre	●
1127510	Geoparl Silk Red I	5 – 25	micron	Interference silk red lustre	●
1127560	Geoparl Silk Violet I	5 – 25	micron	Interference silk violet lustre	●
1127610	Geoparl Silk Blue I	5 – 25	micron	Interference silk blue lustre	●
1127660	Geoparl Silk Green I	5 – 25	micron	Interference silk green lustre	●
1127410	Geoparl Gold I	10 – 60	micron	Interference gold lustre	●
1127470	Geoparl Orange I	10 – 60	micron	Interference orange lustre	●
1127520	Geoparl Red I	10 – 60	micron	Interference red lustre	●
1127710	Geoparl Fuchsia I	10 – 60	micron	Interference fuchsia lustre	●
1027570	Geoparl Violet I	10 – 60	micron	Interference violet lustre	●
1127620	Geoparl Blue I	10 – 60	micron	Interference blue lustre	●
1127670	Geoparl Green I	10 – 60	micron	Interference green lustre	●
1127420	Geoparl Bright Gold I	10 – 100	micron	Interference bright gold	●
1127530	Geoparl Bright Red I	10 – 100	micron	Interference bright red	●
1117580	Geoparl Bright Violet I	10 – 100	micron	Interference bright violet	●
1127630	Geoparl Bright Blue I	10 – 100	micron	Interference bright blue	●
1127680	Geoparl Bright Green I	10 – 100	micron	Interference bright green	●



● Recommended

Golden pigments

A range of intense golden lustrous pigments that add luxury to your products. This portfolio of golden shades is available in a variety of colour tones and particle sizes, ranging from silk 5 – 25 micron to sparkling 20 – 150 micron. Geoparl® golden pigments can be combined with other pigments to create an endless variety of shades.


Art. nr.	Product name	Particle size	Effect	
1137100	Geoparl Silk Sun Gold I	5 – 25 micron	Silk gold lustre	●
1117110	Geoparl Silk Red Gold I	5 – 25 micron	Silk red gold lustre	●
1117290	Geoparl Silk Royal Gold I	5 – 25 micron	Silk warm gold lustre	●
1137135	Geoparl Majestic Gold I	10 – 60 micron	Traditional gold lustre	●
1117280	Geoparl Solar Gold I	10 – 60 micron	Warm sun gold lustre	●
1137120	Geoparl Yellow Gold I	10 – 60 micron	Yellow light gold lustre	●
1117170	Geoparl Deep Gold I	10 – 60 micron	Warm deep gold lustre	●
1117285	Geoparl Ultra Gold I	10 – 60 micron	Warm deep gold lustre	●
1113170	Geoparl Sun Gold I	10 – 60 micron	Sun gold lustre	●
1137150	Geoparl Red Gold I	10 – 60 micron	Deep red gold lustre	●
1137130	Geoparl Lemon Gold I	10 – 60 micron	Light lemon gold lustre	●
1137121	Geoparl Bright Yellow Gold I	10 – 100 micron	Bright yellow gold	●
1137151	Geoparl Bright Red Gold I	10 – 100 micron	Bright red gold	●
1117133	Geoparl Sparkling Lemon Gold I	20 – 150 micron	Sparkling lemon gold	●

● Recommended



Metallic pigments

Our Geoparl® metallic pigments offer warm earth tone colours such as bronze, copper, russet and warm red. They are composed of natural mica coated with iron oxide.


Art. nr.	Product name	Particle size	Effect	
1117300	Geoparl Silk Bronze I	5 – 25 micron	Metallic silk bronze lustre	●
1117350	Geoparl Silk Copper I	5 – 25 micron	Metallic silk copper lustre	●
1117360	Geoparl Silk Russet I	5 – 25 micron	Metallic silk red lustre	●
1147310	Geoparl Bronze I	10 – 60 micron	Metallic bronze lustre	●
1147340	Geoparl Copper I	10 – 60 micron	Metallic copper lustre	●
1147370	Geoparl Russet I	10 – 60 micron	Metallic red lustre	●
1147320	Geoparl Bright Bronze I	10 – 100 micron	Metallic bright bronze	●
1117370	Geoparl Bright Copper I	10 – 100 micron	Metallic bright copper	●
1117380	Geoparl Bright Russet I	10 – 100 micron	Metallic bright russet	●

● Recommended



Colour travel pigments

Our colour travel pigments display exciting metallic colour shifting effects depending on the viewing angle. The Geoparl® colour travel range comes in 5 shades, in a 10 – 60 micron particle size.

Art. nr.	Product name	Particle size	Effect	
1118200	Geoparl CT Red to Gold	10 – 60 micron	Colour shift red to gold	●
1118300	Geoparl CT Fuchsia to Gold	10 – 60 micron	Colour shift fuchsia to gold	●
1118150	Geoparl CT Violet to Orange	10 – 60 micron	Colour shift violet to orange	●
1118250	Geoparl CT Blue to Red	10 – 60 micron	Colour shift blue to red	●
1118100	Geoparl CT Green to Red	10 – 60 micron	Colour shift green to red	●

● Recommended



Formulation guidelines | Plastic chip samples

Product: Plastic chip samples
 Code: Plastic presentation 2021 - Box 1
 Special effect pigment: Geopearl Solar Gold I

Product name	% WT.	Supplier
Plastic chip 6A		
Geopearl Solar Gold I	1.00	Geotech International B.V.
Braskem Inspire 382 (Clear PP)	99.00	Braskem Netherlands B.V.
Plastic chip 6B		
Geopearl Solar Gold I	1.00	Geotech International B.V.
Braskem Inspire 382 (Clear PP)	98.00	Braskem Netherlands B.V.
Master batch Red (5% PR254)	1.00	

Procedure

These chips are manufactured by dry mixing of components using a BOY25E injection chiping machine. We recommend to incorporate our special effect pigments into a masterbatch for optimum results.

Samples of the chips are available upon request.



Formulation guideline | Plastic chip

Product: Plastic chip samples
 Code: Plastic presentation 2021 - Box 1
 Special effect pigment: Geoparl Silk Silver I

Product name	% WT.	Supplier
Plastic chip 1A		
Geoparl Silk Silver I	0.50	Geotech International B.V.
Braskem Inspire 382 (Clear PP)	99.50	Braskem Netherlands B.V.
Plastic chip 1B		
Geoparl Silk Silver I	1.00	Geotech International B.V.
Braskem Inspire 382 (Clear PP)	98.00	Braskem Netherlands B.V.
Maxxam 10 T/20 H Black T 70 (MB Black)	1.00	Avient Corporation
Plastic chip 1C		
Geoparl Silk Silver I	1.00	Geotech International B.V.
Braskem Inspire 382 (Clear PP)	98.00	Braskem Netherlands B.V.
Master batch Red (5% PR254)	1.00	

Procedure

These chips are manufactured by dry mixing of components using a BOY25E injection chipping machine. We recommend to incorporate our special effect pigments into a masterbatch for optimum results.

Samples of the chips are available upon request.



General formulation do's and don'ts

Temperature resistance

Geoparl® pearlescent pigments have a temperature resistance up to 900°C due to calcination in the production process, except types coated with Ferric Ferrocyanide which have a temperature resistance up to 450°C.

Compliance to regulations

The 'I' behind the Geoparl® product name stands for industrial grade. The Geoparl® I pearlescent pigments are approved for industrial use on the European, USA and Asian market; including food contact.

Colour mixing

Unlike traditional pigments, iridescent pearls reflect, refract and transmit light and follow an additive colour mixing scheme. A mix of blue and yellow interference pearls will yield a white reflection rather than the expected green (= subtractive colour mixing). This is why only limited mixing (so called tinting) of interference pigments is advised.



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



Available packaging

Nett weight	Gross weight	Package size L x W x H
1	2	15 x 15 x 15 cm
5 kg	6 kg	35 x 18 x 21 cm
25 kg	27 kg	40 x 40 x 50 cm

Packed in a plastic bag in a cardboard box.

Shelf life

120 months 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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