

 **Geodiamond**[®]
PEARLESCENT PIGMENTS

**luxurious sophisticated sparkling glass flakes
for coatings & paints**

Geodiamond® borosilicate pigments for cosmetics

Geodiamond® effect pigments are exclusive specialty pigments based on borosilicate flakes. They bring products to life with brilliant colour and glittering effects. Geodiamond® pigments are coated with titanium dioxide, iron oxide, real silver (Ag) and more, resulting in unlimited possibilities for formulators looking for eye-catching effects in coating products.

- The product range includes the following types:
- White/pearl borosilicate based effect pigments;
 - Interference borosilicate based effect pigments;
 - Golden borosilicate based effect pigments;
 - Silver Ag borosilicate based effect pigments.

Each range offers a variety of particle sizes: XS (10 – 60 µm), S (10 – 100 µm), M (30 – 220 µm), L (50 – 350 µm) and XL (80 – 450 µm).

The white and interference Geodiamond® pigments out-perform traditional mica based pearlescent pigments in lustre, brightness, transparency and reflectivity. They create an exceptionally high visual impact. This makes them suitable for all kinds of coating applications.

The exclusive Geodiamond® Silver Ag pigments produce an extremely brilliant mirror like reflection (> 88%) and sparkling effect which cannot be achieved by any other technology.

Geodiamond® pigments are non-toxic, water and solvent resistant.

Product benefits

- Creates luxurious and sophisticated diamond effects in coating and paint products
- Alternative for polyester glitter particles
- Excellent transparency of glass flakes
- In compliance with global regulations for coatings & paints

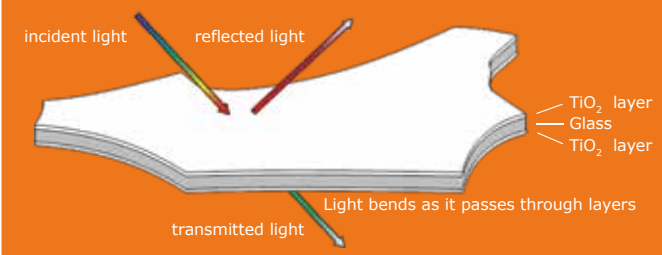
Applications

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

	Spray coating		Cast flooring		Aerosols
	Powder coating		Decorative paints		

The effect

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



Very thin Calcium Sodium Borosilicate glass is the base for our Geodiamond® pigments. The particles have a more uniform thickness and a flat surface which results in a clean and pure colour next to a brilliant sparkling effect even for smaller particles.

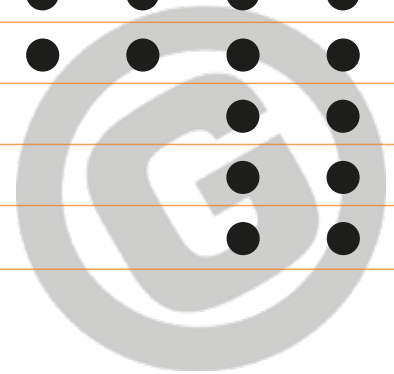
The transparent flakes are coated on all sides with a thin layer of titanium dioxide and/or other metal oxides (for some products even pure silver), effectively helping to reflect and bend the light.





Art. nr.	Product name	Particle size		Effect					
1216100	Geodiamond Pearl XS	10 - 60	micron	Interference Pearl lustre	●	●	●	●	●
1216200	Geodiamond Pearl S	10 - 100	micron	Interference Pearl bright lustre	●	●	●	●	●
1216300	Geodiamond Pearl M	20 - 150	micron	Interference Pearl sparkling lustre				●	●
1216600	Geodiamond Pearl L	50 - 200	micron	Interference Pearl glittering lustre				●	●
1216610	Geodiamond Pearl XL	100 - 500	micron	Interference Pearl twinkling lustre	●	●	●	●	●
1216110	Geodiamond Gold XS	10 - 60	micron	Interference Gold lustre	●	●	●	●	●
1226210	Geodiamond Gold S	10 - 100	micron	Interference Gold bright lustre	●	●	●	●	●
1226310	Geodiamond Gold M	20 - 150	micron	Interference Gold sparkling lustre				●	●
1226610	Geodiamond Gold L	50 - 200	micron	Interference Gold glittering lustre				●	●
1226720	Geodiamond Gold XL	100 - 500	micron	Interference Gold twinkling lustre				●	●
1216120	Geodiamond Red XS	10 - 60	micron	Interference Red lustre	●	●	●	●	●
1226220	Geodiamond Red S	10 - 100	micron	Interference Red bright lustre	●	●	●	●	●
1226320	Geodiamond Red M	20 - 150	micron	Interference Red sparkling lustre				●	●
1226620	Geodiamond Red L	50 - 200	micron	Interference Red glittering lustre				●	●
1226725	Geodiamond Red XL	100 - 500	micron	Interference Red twinkling lustre				●	●
1216140	Geodiamond Blue XS	10 - 60	micron	Interference Blue lustre	●	●	●	●	●
1226240	Geodiamond Blue S	10 - 100	micron	Interference Blue bright lustre	●	●	●	●	●
1226340	Geodiamond Blue M	20 - 150	micron	Interference Blue sparkling lustre				●	●
1226640	Geodiamond Blue L	50 - 200	micron	Interference Blue glittering lustre				●	●
1226735	Geodiamond Blue XL	100 - 500	micron	Interference Blue twinkling lustre				●	●

● Recommended





Art. nr.	Product name	Particle size		Effect					
1216150	Geodiamond Green XS	10 - 60	micron	Interference Green lustre	●	●	●	●	●
1226260	Geodiamond Green S	10 - 100	micron	Interference Green bright lustre	●	●	●	●	●
1226360	Geodiamond Green M	20 - 150	micron	Interference Green sparkling lustre				●	●
1226660	Geodiamond Green L	50 - 200	micron	Interference Green glittering lustre				●	●
1226735	Geodiamond Green XL	100 - 500	micron	Interference Green twinkling lustre				●	●
1216130	Geodiamond Violet XS	10 - 60	micron	Interference Violet lustre	●	●	●	●	●
1226250	Geodiamond Violet S	10 - 100	micron	Interference Violet bright lustre	●	●	●	●	●
1226350	Geodiamond Violet M	20 - 150	micron	Interference Violet sparkling lustre				●	●
1226650	Geodiamond Violet L	50 - 200	micron	Interference Violet glittering lustre				●	●
1226730	Geodiamond Violet XL	100 - 500	micron	Interference Violet twinkling lustre				●	●
1226630	Geodiamond Fuchsia L	50 - 200	micron	Interference Fuchsia glittering lustre				●	●

● Recommended





Art. nr.	Product name	Particle size		Effect					
1226700	Geodiamond Super Red Gold L	50 - 200	micron	Interference Red Gold glittering lustre				●	●
1276410	Geodiamond Silver Ag XS	10 - 60	micron	Intense Silver reflection	●	●	●		
1276400	Geodiamond Silver Ag S	10 - 100	micron	Intense Silver bright reflection	●	●	●		

● Recommended



General formulation do's and don'ts

Avoid high shear or grinding

The calcium sodium borosilicate based Geodiamond® pearlescent pigments are available in different sizes. From XS with an average particle size of 25 micron until and XL, with an average of 175 micron. Calcium sodium borosilicate is a brittle substrate and therefore high shear and/or grinding can break the particles. For improved handling pre-wetting the pigments is recommended by making in a premix in vehicle (oils or solvents) under slow stirring conditions.

Settling prevention

Pearlescent pigments, like many inorganic pigments, have a tendency to settle in a paint formulation due to their high specific gravity. Therefore a good suspension is needed by increased viscosity of the paint vehicle or by adding special additives (thixotropy or suspending agents). Building an associated network in the paint vehicle will 'hold' the pigment particles and reduce the settling tendency.

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)
Spray coating	1 - 10 % (topcoats 1 - 3 %)
Powder coating	3 - 5 %
Aerosols	1 - 5 %
Cast flooring	1 - 10 %
Decorative paints	10 - 15 % (topcoats 1 - 3 %)



Available packaging

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

Packaged 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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REV0 14.02.2022

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