



Geosoft[®]

SILICA SPHERES





Geosoft® is a range of spherical silica with a ball-bearing effect. The silica beads have been designed to help cosmetic formulators to achieve sensoriality when formulating cosmetic products. 100% natural origin and non-plastic, this range allows for microplastic-free formulations without compromising performance.

Geosoft L08 consists of 8 µm silica spheres and has been specifically developed as a functional replacement for PMMA beads, delivering comparable sensorial performance while meeting regulatory and sustainability requirements. With low oil absorption, it provides a smooth, lightweight skin feel, excellent slip, and controlled payoff without excessive mattification. Its uniform spherical shape contributes to soft-focus optical diffusion and improved spreadability across both colour and skincare formulations.

Geosoft M12 is the most versatile option for a wide range of makeup and sun care applications with an average particle size of 12 µm. It combines slip with moderate oil absorption, delivering balanced mattification, optical blurring, and uniform coverage. The larger particle size enhances slip and payoff, while its absorption capacity supports extended wear and improved finish.

Product benefits

- Highly pure silica
- Ball-bearing effect
- Alternative to plastic beads
- Soft focus or matte finishes in cosmetic products
- Compatible with most cosmetic formulations

Recommended applications



- Eye area

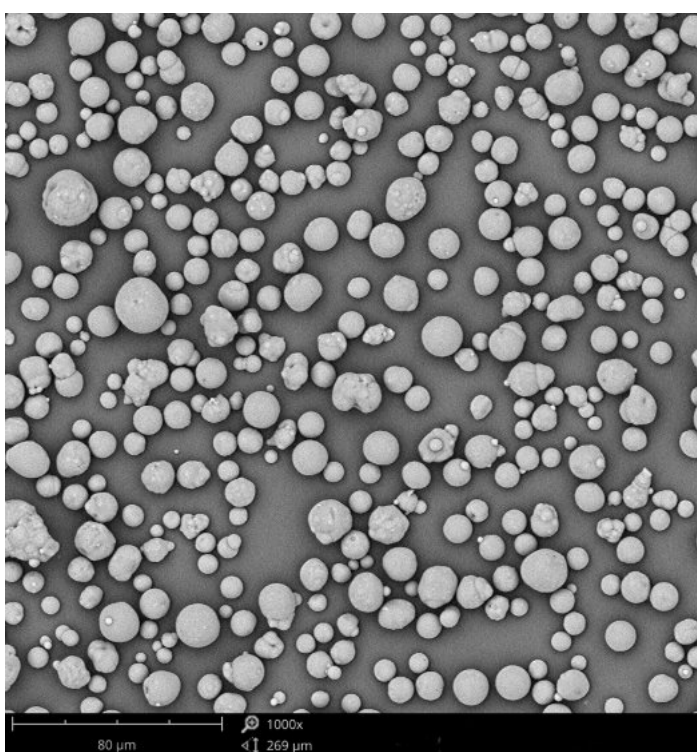


- Lip area



- External

Art. Nr.	Product Name	Mean Particle Size (µm)	INCI Name	Oil Absorption (mL/100g)
2105100	Geosoft L08	8	Silica	60
2105105	Geosoft M12	12	Silica	100



SEM image of Geosoft M12 at 1000x magnification

Order details

Available packaging

- 5 kg Nett weight
- 25 kg Nett weight

Shelf life

- 5 years original packaging stored in a closed box under dry conditions

Product data

- Product data sheets and additional technical product information are available on <https://geotech.nl/>

Water- or solvent based formulations

Geosoft® is suitable for water and solvent based formulations.

Grinding

Geosoft® disperses well without grinding. It can be added to the powder system while stirring after milling of the organic / inorganic pigments and before the binder is added.

Temperature resistance

Geosoft® is high temperature resistant.

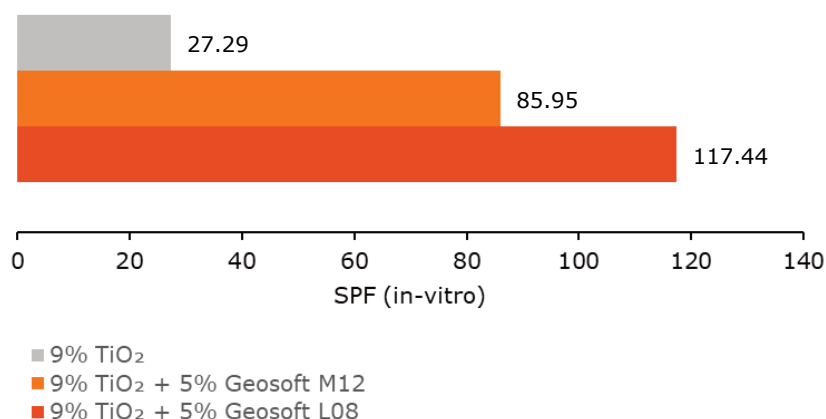
Storage

Opened bags should be stored in closed boxes under dry conditions to avoid the influence of moisture.

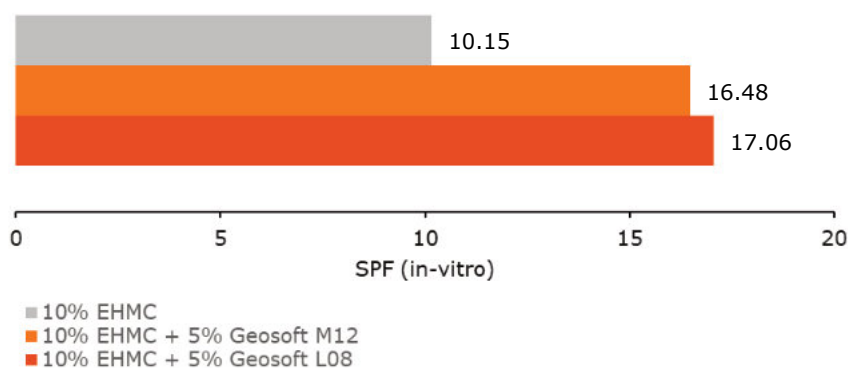
SPF boosting effect of Geosoft M12 and Geosoft L08 in sunscreen formulations

Geosoft® boosts SPF in sunscreen by providing an even distribution of UV filters and forming a thicker and more uniform film on the skin. Silica spheres do not provide sun protection, but can enable less filters to be used in formulations. Additionally, Geosoft® absorbs oil and sebum, reducing the greasy feel which results in smooth application of sunscreen formulations.

Comparison of in-vitro SPF in inorganic sunscreen without and with Geosoft M12 and Geosoft L08



Comparison of in-vitro SPF in organic sunscreen without and with Geosoft M12 and Geosoft L08



GENERAL FORMULATION DO'S AND DON'TS

Concentration

Finished product	Recommended level of use	Effect
Eye shadow	5 - 20 %	Smooth application and pickup
Mascara	1 - 5 %	Improved payoff, lash separation, and volumising effect
Sticks	1 - 15 %	Slip, enhanced stability, and improved payoff
Emulsions	0.1 - 10 %	Smooth application and sebum control
Loose powder	Up to 100%	Smooth application, soft-focus effect and mattification
SPF products	0.5 - 5 %	Reduced greasiness and improved spreadability for even distribution of UV filters

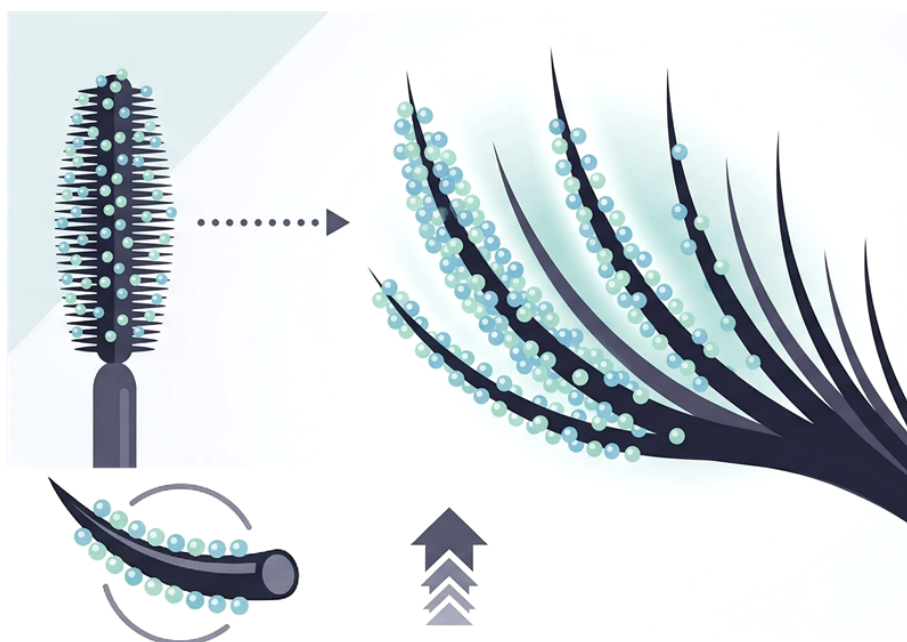


Illustration of the volumising effect in mascara

FORMULATION GUIDELINE | ROLL AGAIN AND AGAIN CREAM LIPSTICK

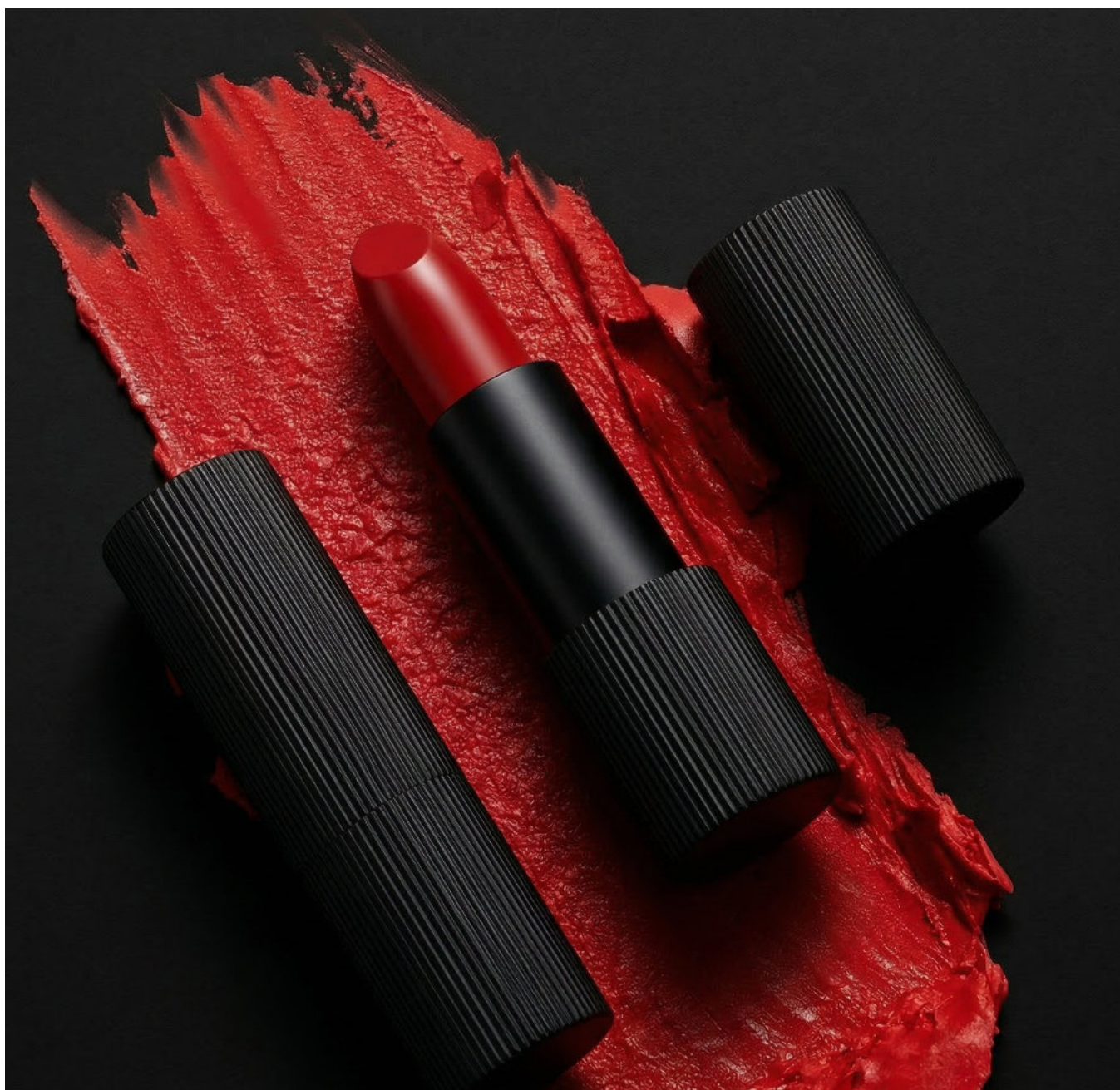
Product: **Roll Again and Again Cream Lipstick**
 Code: **21662-NP-01-01**
 Special effect pigment: **Silux Aurora Tropical Ocean | Geodiamond Gold M | Geoparl C Crystal Rufous | Geosoft M12**

Product name	INCI name	%WT.	Supplier
Phase A			
Schercemol TISC ester	Triisostearyl Citrate	5.00	Lubrizol
Softisan 649	Bis-Diglyceryl Polyacyladipate-2	11.00	IOI Chemical
Softisan 650	Polyglyceryl-3 Azelate/Caprates/Caprylate/ Stearate Crosspolymer	4.50	IOI Chemical
Plantasens Pro LM	Lauryl/Myristyl Polyricinoleate (and) Glycerin	8.00	Clariant
Plantasens Olive LD	Hydrogenated Ethylhexyl Olivates (and) Hydrogenated Olive Oil Unsaponifiables	6.00	Clariant
	Octyldodecanol	18.00	
Phase B			
Neelilip Elegans Paste CO-001	Ricinus Communis Seed Oil (and) CI 15850	6.00	Neelikon Speciality Europe
D&C Red 6 in Castor Oil	Ricinus Communis Seed Oil (and) CI 15850	6.00	
Phase C			
Fumed silica	Silica	1.00	
Phase D			
Sunflower Wax	Helianthus Annuus Seed Wax	7.30	Koster Keunen
Candelilla wax	Euphorbia Cerifera Cera	8.20	Koster Keunen
Kesterwax K70P	C18-38 Alkyl Hydroxystearoyl Stearate	2.00	Koster Keunen
Softisan 100	Hydrogenated Coco-Glycerides	4.00	IOI Chemical
Phase E			
Silux Aurora Tropical Ocean	Titanium Dioxide (and) Silica	1.00	Geotech International B.V.
Geodiamond Gold M	Calcium Sodium Borosilicate (and) Titanium Dioxide (and) Tin Oxide	3.00	Geotech International B.V.
Geoparl C Crystal Rufous	Synthetic Fluorophlogopite (and) CI 77491	1.00	Geotech International B.V.
Geosoft M12	Silica	1.50	Geotech International B.V.
Phase F			
	Bisabolol	0.20	
	Tocopherol	0.10	
Jojoba oil	Simmondsia Chinensis Seed Oil	2.00	Chempri
Cottonseed oil	Gossypium Herbaceum Seed Oil	3.00	Chempri
Preservative		q.s.	
Phase G			
Grapefruit Essential Oil	Citrus Paradisi Peel Oil	0.20	



Procedure

1. Heat phase A to 80-90 °C and mix until homogeneous.
2. Premix phase B. Add and mix until fully combined.
3. Add phase C carefully. Mix until combined, shortly disperse if necessary.
4. Add phase D. Mix until fully melted and homogeneous.
5. Add special effect pigments, phase E. Mix until combined.
6. Add phase F one by one, mix between every addition.
7. Add phase G. Mix until homogeneous. Pour into moulds at 80-90 °C. Set in the fridge for 5 minutes.



FORMULATION GUIDELINE | LUMENLASH COLOURED MASCARA

Product: **Lumenlash Coloured Mascara**
 Code: **21443-PXA-01-06**
 Special effect pigment: **Geodiamond Blue XS | Geosoft L08**

Product name	INCI name	%WT.	Supplier
Phase A			
Demiwater	Aqua	45.75	
Euxyl® PE 9010	Phenoxyethanol (and) Ethylhexylglycerin	1.00	Ashland
GA 080	Sodium Gluconate	0.30	Beauté by Roquette
Phase B			
	Arginine	1.20	
Phase C			
	Polyglyceryl-10 Stearate, Polyglycerin-10	2.00	
Phase D			
Lavanya Chaandni	Titanium Dioxide	4.55	Neelikon Specialities Europe B.V.
Lavanya Tulip/D&C Red 28 Lake	CI 45410	0.45	Neelikon Specialities Europe B.V.
Lavanya Aasmani/Ultramarine Blue	CI 77007	3.00	Neelikon Specialities Europe B.V.
Phase E			
	Acacia Gum	3.70	
Keltrol CG-SFT	Xanthan Gum	0.30	CP Kelco
	Glycerin	2.00	
	Propanediol 1,3	5.00	
Phase F			
Sunflower Wax	Helianthus Annuus Seed Wax	5.70	Koster Keunen
Carnauba wax T1	Copernicia Cerifera Cera	5.20	Koster Keunen
	Glyceryl Stearate (and) Cetearyl Alcohol (and) Sodium Stearoyl Lactylate	2.80	
Stearic acid 98%	Stearic Acid (and) Palmitic acid	2.20	Chempri
Cottonseed oil	Gossypium Herbaceum Seed Oil	2.00	Chempri
SOFTISAN 650	Polyglyceryl-3 Azelate/Caprates/Caprylate/Stearate Crosspolymer	2.70	IOI OLEOCHEMICAL
	Tocopherol	0.15	
Phase G			
Geodiamond Blue XS	Calcium Sodium Borosilicate (and) Titanium Dioxide (and) Tin Oxide	5.00	Geotech International B.V.
Geosoft L08	Silica	5.00	Geotech International B.V.



Procedure

1. Mix phase A 80-85 °C.
2. Add phase B and stir until dissolved.
3. Add phase C and stir until dissolved.
4. Add phase D and mill until fully dispersed. Check if pigments are fully dispersed, mill further if necessary.
5. Premix phase E. Add to beaker and disperse until homogeneous.
6. Heat phase F to 80-85 °C and mix until melted. Add and disperse until smooth. Start cooling while stirring until 30-40 °C. Disperse again until smooth.
7. Add phase G. Stir until fully combined. Cool further to RT.





Cosmetics offer a powerful means of self-expression, building confidence, and promoting self-care.

At GEOTECH, we continuously innovate by exploring new effects and formulations to meet these demands.

Located in Haarlem, The Netherlands, our in-house cosmetics application laboratory is where we develop formulations and colour concepts using our special effect pigments. This dedicated facility complements our existing laboratory for Quality Control and Product Development.

The activities of the cosmetic application laboratory includes:

- Developing and testing of new formulations
- Creating colour concepts
- Providing technical training on how to formulate with our pigments
- Colour and effect matching

Our cosmetic chemists provide technical support from this facility, enabling clients to fully utilise our products. For an overview of product formulations and colour concepts developed by our team visit www.geotech.nl/formulations



ABOUT US

Enhancing product appearances

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.



ecovadis



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

