

UV-filter, soft focus agent

Application Sheet

Eospoly® UV-products are composites of nanofine rutile type Titanium Dioxide in a spherical silica or polymer structure. Eospoly® UV-composites provide UVA- and UVB-protection and an instant optical illusion of smoothness and luminosity. In Eospoly® UV-composites the mineral UV-filters are encapsulated into silica or polymer spheres. Due to the shape and the size of Eospolys®, they will fit seamlessly onto the contours of the skin and create specular diffusion. Eospoly® UV-composites are photostable and easy to formulate with. They are available as hydrophobic or hydrophilic.

Trade Name	INCI Name
Eospoly® UV TR 22 HB 25	Styrene/Acrylates Copolymer (and) Titanium Dioxide (and) Methicone (and) PEG 26 – PPG 30 Phosphate
Eospoly® UV TR 22 HB 50	Titanium Dioxide (and) Styrene/Acrylates Copolymer (and) Methicone (and) PEG 26 – PPG 30 Phosphate
Eospoly® UV TR 22 HL 25	Styrene/Acrylates Copolymer (and) Titanium Dioxide (and) PEG 26 – PPG 30 Phosphate
Eospoly® UV TR 22 HL 50	Titanium Dioxide (and) Styrene/Acrylates Copolymer (and) PEG 26 – PPG 30 Phosphate
Eospoly® UV TR 22 SIL 30	Silica (and) Titanium Dioxide (and) Alumina
Eospoly® UV TR 22 SIL 50	Silica (and) Titanium Dioxide (and) Alumina

Product	Surface Treatment	TiO ₂ Concentration
Eospoly® UV TR 22 HB 25	Hydrophobic	25%
Eospoly® UV TR 22 HB 50	Hydrophobic	50%
Eospoly® UV TR 22 HL 25	Hydrophilic	25%
Eospoly® UV TR 22 HL 50	Hydrophilic	50%
Eospoly® UV TR 22 SIL 30	Hydrophobic	30%
Eospoly® UV TR 22 SIL 50	Hydrophobic	50%

Benefits

- high UVA/UVB-protection
- soft focus effect
- soft skin feel
- stabilize emulsions
- choice of hydrophilic or hydrophobic surface treatment
- do not require predispersing

Properties

- particle size 10 microns
- low density
- photostable
- mattifying



Application Areas

Skin Care

Eospoly® UV-composites are ideal for anti-age products with high UVA-protection. Due to their spherical structure, Eospoly® UV-composites also provide a soft focus effect. The silica beads of Eospoly® TR 22 SIL 30 and Eospoly® TR 22 SIL 50 can also hold actives such as vitamins, oils or perfumes.

Sun Care

Eospoly® UV-composites give high UVA- and UVB-protection. Eospolys® are ideal for facial sun care products as they provide a soft focus effect and a matt application. Eospoly® TR 22 SIL 30 and Eospoly® TR 22 SIL 50 can also be used to absorb organic UV-filters.

Colour Care

Eospoly® UV-composites are ideal for foundations and make up bases due to the specular diffusion they create. They are also suitable for powder applications, where they bring UV-protection in addition to texture.

Formulating

Because of the low density of Eospolys®, they do not have the same requirements for formulating like mineral UV-filters in general. This gives flexibility for formulators to try different kinds of formulations without the risk of sedimentation. Eospolys® can be added directly to formulations without being pre-dispersed. Eospolys® are suitable for both hot and cold processes, but they do not tolerate high shear mixing. If grinding is needed for other ingredients, it can be done lightly, but not with three-roll mill.

Emulsions

Eospoly® UV-composites can be used in all types of emulsions. They are especially suitable for O/W emulsions, in which the hydrophilic Eospolys® provide the best light diffusion performance. Eospoly® UV-composites are added to emulsions after emulsification.

Typical use level: 2-15%

Anhydrous Systems

Eospoly® UV-composites can be used in all types of anhydrous systems including powder applications. The hydrophobic Eospolys® are the best choice for powder applications as they give longer lasting application and they have better binding properties.

Typical use level: 2-15%

We offer SPF in-vitro testing free of charge for our customers when formulating with Eospoly® UV-products.

Packaging: 25 kg sealed aluminium bag in cardboard box