

# ANTARIA

an advanced materials world

## Технический паспорт

ZinClear® XP (порошок оксида цинка без покрытия)

### Химический Состав

INCI название	CAS No.
Zinc Oxide (Оксид Цинка)	1314-13-2

### Характерные черты и Преимущества

- Прозрачность / Без белого следа
- Превосходит требования к критической длине волны
- Широкая спектральная защита УФА / УФВ
- Подходит для всех типов кожи

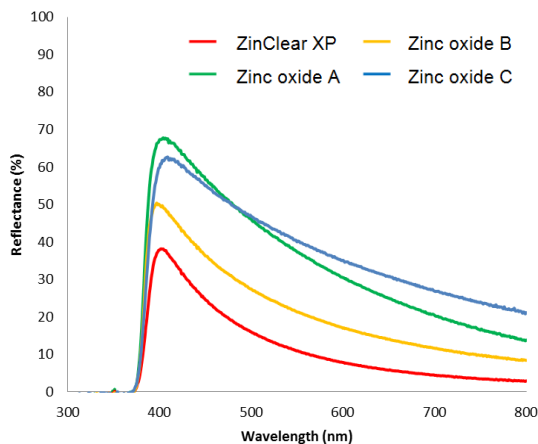
### Основное Применение

- В комбинации с другими УФ-фильтрами - косметика сегмента масс-маркет
- Защитные средства для чувствительной кожи
- Ежедневный уход за кожей с SPF
- Солнцезащитные средства 'натуральные' и 'только с минеральными фильтрами'
- Детские солнцезащитные средства
- Декоративная косметика
- Бальзамы для губ

### Физические Характеристики

ZinClear XP™

Сравнение прозрачности ZinClear XP™ с конкурентными продуктами (оксид цинка) приведено на графике ниже.



Дисперсии ZinClear XP™ демонстрирует значительную прозрачность по сравнению с аналогичными продуктами конкурентов (см. фото и диаграммы ниже).



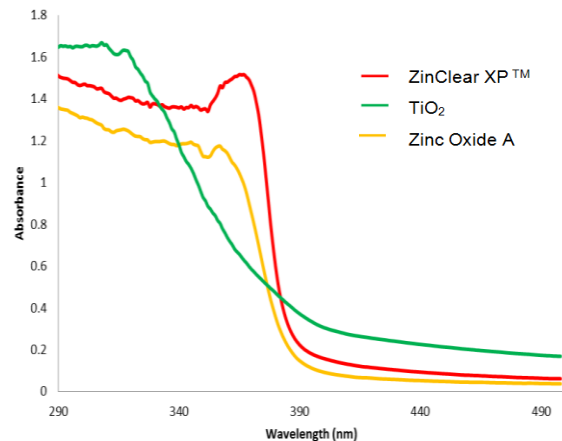
Zinc oxide B    Zinc oxide D    **ZinClear XP**    Zinc oxide A    Zinc oxide C

### Широкий спектр защиты

Zinc oxide's absorbance profile intrinsically spans both UVA and UVB. ZinClear XP™ has been specifically designed to enhance the UVA protection performance of the zinc oxide. This enables ZinClear XP™ to be used on its own or in combination with other filters to:

- Meet the **UVAPF>1/3 SPF** requirement
- Exceed the **370nm** critical wavelength

An absorbance spectrum with ZinClear XP™, TiO<sub>2</sub> and conventional zinc oxide is shown below.



The information set out above is indicative and provided for illustrative purposes only. Antaria limited does not guarantee that the product is fit for any particular purpose and the user is responsible for conducting its own evaluations and tests. Antaria Limited's liability is limited by its general terms and conditions of sales which are available upon request. This product information is current as at October 2013.

ZinClear XP™ forms part of the ZinClear® range of products. ZinClear® and their logos are registered trademarks of Antaria Limited. Patents pending.

**Typical Performance / Required Loadings**

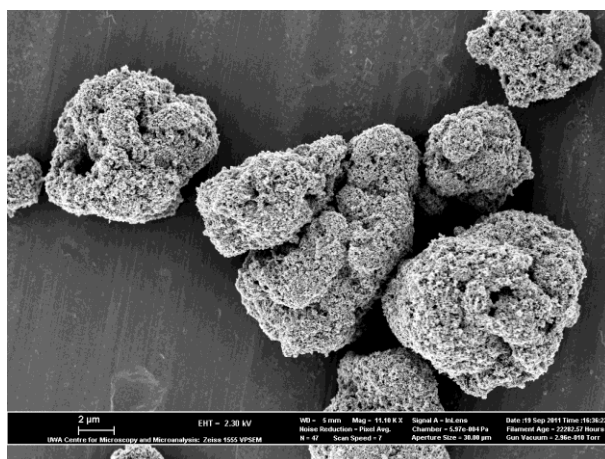
ZinClear XP™ can be formulated at high loadings to achieve high SPF without compromising the clarity of the end product.

SPF target	ZinClear XP™ Loading
<15	7.5-12.5%
15-25	15-20%
30+	20-25%

Antaria recommends that formulators should use *in vivo* SPF testing when possible during product development to ensure reliability of results.

**ZinClear XP™ Particle Morphology**

The zinc oxide particles in ZinClear XP™ have a unique porous structure as shown in the SEM image below.

**Regulatory Status**

For use as a UV filter, zinc oxide is approved within the limits prescribed in the following table.

Region	Approval Limit
USA	25%
Canada	25%
EU	Under Review
Japan	No Limit
Korea	25%
Australia / NZ	No Limit
ASEAN	25%
China	25%
South Africa	25%

**Handling**

Good ventilation is advised when handling the powder. Consult the MSDS for additional handling or safety information.

**Use**

It is recommended that a high shear or high speed mixer be used to disperse ZinClear XP™. Preferably the powder is dispersed in the oil phase using a dispersant level of 6-10wt% zinc oxide. Adjust the temperature as required to melt waxes and other solids.

Dispersions of up to 60wt% zinc oxide powder in the oil phase may be achieved. Continue mixing until a free flowing liquid free of agglomerates is achieved; lower viscosities are obtained with lower ZnO content.

**Packaging**

Pack Type	Unit size	Full pallet
Box	12.5kg	337.5kg

**Shelf Life**

ZinClear XP™ has a shelf-life stability of 36 months when stored under standard conditions (above 5°C and below 30°C).

**ZinClear XP™: Technical Specification**

Appearance	White Powder
Assay (zinc oxide)	>99%
Surface Area	~20 m <sup>2</sup> /g

ZinClear XP™ meets USP

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