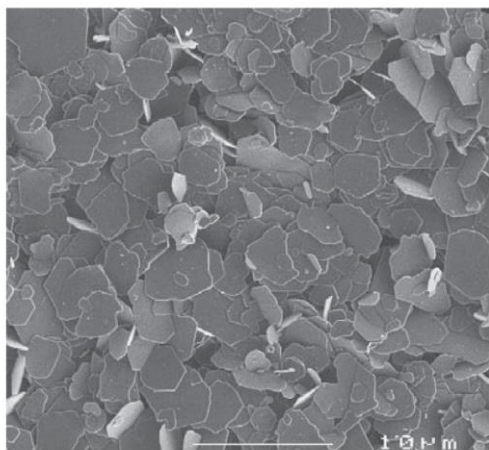


## Technical Data Sheet

Alusion®

### Introduction

Antaria's unique technology controls crystal growth providing a uniform platelet morphology giving superior slip, adhesion, and transparency.



This high purity grade of platelet alumina powder is specifically designed for soft focus effects with superior cosmetic feel and a luminescent finish.

### Chemical Composition

INCI Name	CAS No.
Alumina	1344-28-1

### Features and Benefits

- Slip and feel never seen before in Alumina
- Superior soft focus
  - A combination of strong diffuse scattering with high specular transmittance giving a more natural looking soft focus effect
- Translucency (platelets lie flat allowing more light through)
  - More natural skin tones
  - Brighter pigment colours
- Strong adhesion
  - Plate morphology with clean surfaces stay on longer
- Long history of use
  - Alumina already approved for use in foods and drugs by FDA, Alusion® is simply a morphology enhanced alumina

### Applications

Alusion® can be used in a variety of cosmetic applications. Common uses include:

- Face Powders
- Eye Shadow and Blush
- Foundations
- Lipstick
- Skin Care
- Bath and Body Products
- Beauty Products

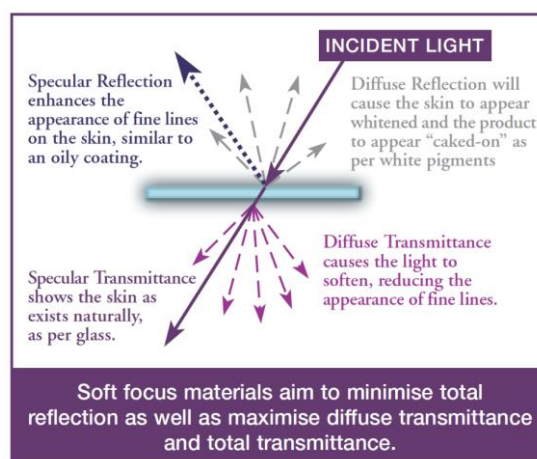
### Strong Adhesion

Using multiple substrates and testing methods on average Alusion® adhered:

- 19% more than Boron Nitride
- 29% more than Talc
- 44% more than Nylon
- 64% more than Silica

### Soft Focus Properties

Soft focus cosmetics aim to reduce the appearance of fine lines by ensuring that light is highly diffused. Fine lines are hidden, whilst remaining highly transparent and hence showing natural skin tones.

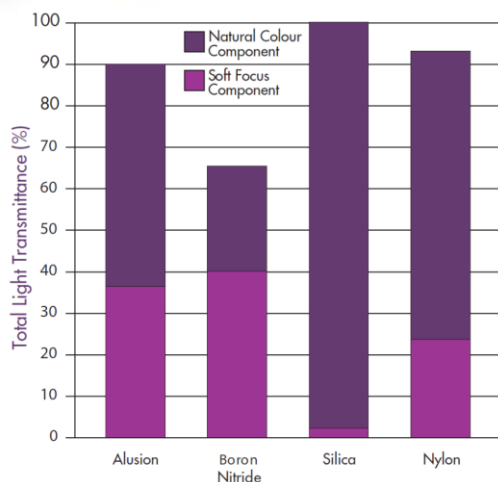


Light can interact with a material in a number of ways as shown. Soft focus materials reduce the reflected components of light, which show lines and whiten the skin, and increase the diffuse component of transmitted light softening fine lines.

Alusion® enhances the diffusion of light whilst remaining highly transparent, giving a superior more natural look.

### **Soft Focus Effect and Alusion®**

As can be seen by the transmittance measurements, Alusion® has superior combination of diffuse and total transmittance giving a more natural looking soft focus effect.



### **Formulation**

Typical ranges of Alusion® Powder used in cosmetic formulations:

- Face and body powder 2-10%
- Eye Shadow/blushes 2-10%
- Lipstick 1-10%
- Lip and eye pencils 2-55%
- Concealers/foundations 1-5%
- Nail enamels 1-2%
- Skin care lotions/creams 2-10%

### **Storage & Handling**

Good ventilation is advised when handling the powder. Store in a cool, dry place.

Consult the SDS for additional handling or safety information.

### **Packaging**

Pack Type	Unit Size	Full Pallet
Box	20kg	360kg

### **Shelf Life**

Alusion® has a shelf-life stability of 5 years when stored under standard conditions (above 5°C and below 30°C).

*Alusion® and its logos are registered trademarks of Antaria Pty Ltd.*

### **Alusion®: Technical Specification**

Crystal	Hexagonal (XRD)
Appearance	White powder (Visual)
Form	Free flowing powder (Visual)
Whiteness Index	> 88.0 (CIE Index – UV Vis)
Loss on Drying	< 0.5 % (3 hr at 160°C)
pH Value	5.0 – 8.0 (ISO 787-9)
Mean Particle Size	6.0 – 10.5 (Laster Light Scattering)
Al <sub>2</sub> O <sub>3</sub>	>99.5 %
Purity	Meets FDA specifications for heavy metals impurities (Pb, As, Hg) in Food and drug Colour Additives