# Kingbornit Kingsica

Kingaolin

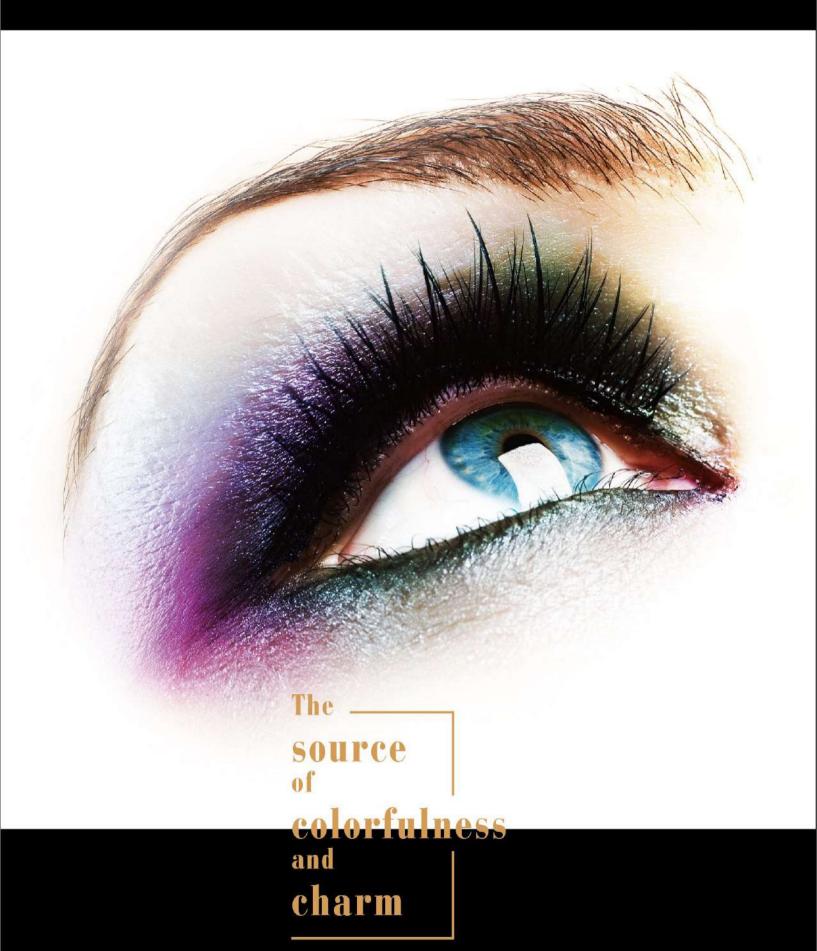


Gosllary

King Powder

联锴粉体

Kingtalfer Kingcovite Kingruti



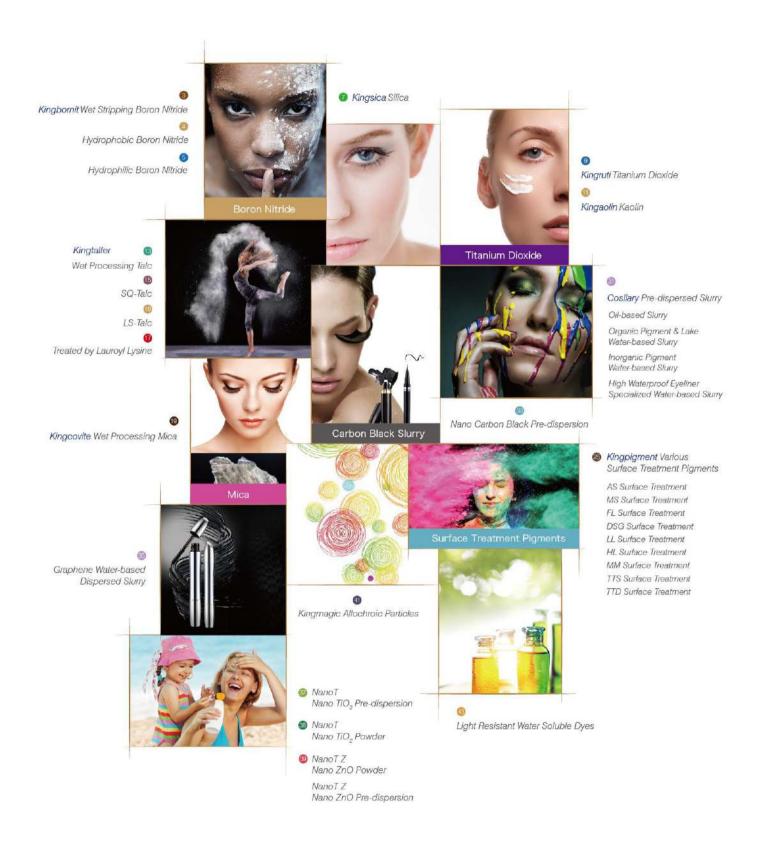


### 致力于全球领先粉体材料的创新及研究

COMMITTED TO THE WORLD'S LEADING POWDER MATERIAL INNOVATION AND RESEARCH



### Index

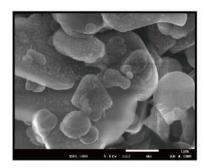






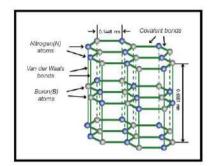
## Kingbornit WET STRIPPING BORON NITRIDE

- The unique wet stripping technology from KingPowder strictly controls elution amount of boron, which can meet the JSQI.
- More completely peeling by wet stripping technology, thin lamellar, light particle, high radius-thickness ratio, large specific surface area, evenly distributed particle size, good cost performance.
- The hexagonal lamellar structure is rounded and silky, which can take on perfect gloss effect.
   Excellent slippage and extremely access to skin.
- Cosmetic boron nitride, B<sub>2</sub>O<sub>3</sub><0.1%, high safety.</li>



SEM image of hexagonal boron nitride

Chemical inertness, safety and non-poisonous. It has a high refractive index of 1.74.



Hexagonal boron nitride structure

Like graphite layered structure, low friction coefficient and excellent spreadability. Different particle sizes can present a variety of optical properties.

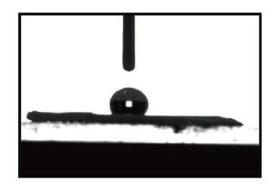
Product Name	Product Code	Mean Particle Size	Tap Density (g/cm³)	Specific Surface Area (m²/g)	Elution Amount of Boron
Kingbornit 3001	110505	1 μ <b>m</b>	0.28	23	
Kingbornit 3002	110502	3 µm	0.18	10	p <u> </u>
Kingbornit 500	110501	6 µm	0.14	8	—
Kingbornit 3012	110506	11 μm	0.60	3	ş <u></u>
Kingbornit 9006	110514	6 µm	0.14	8	≤20 ppm
Kingbornit 9011	110515	11 <i>µm</i>	0.60	4	<20 ppm



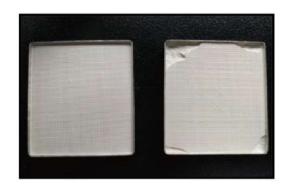
### HYDROPHOBIC BORON NITRIDE

### customizable

- Improve the dispersity in oil phase, simplify the dispersing process.
- Reinforce particle in lipstick, pencils and pressed powder, etc.
- Enable the creams to be picked up easier and longer the duration of makeup.
- Provide more material solutions for stabilizing product systems.



Measurement of contact angle



Contains 5% Kingbornit Blank

Damage compared after 40 times free falls from 50cm

Product Name	Product Code	Mean Particle Size	Surface Treating Agent
Kingbornit 500 SI	110801	6 µm	
Kingbornit 3002 SI	110802	3 µт	Dimethicone  Excellent hydrophobic effect
Kingbornit 3012 SI	110804	12 μm	



### HYDROPHILIC BORON NITRIDE

- The boron nitride using PEG-12 dimethicone surface treatment is perfectly hydrophilic, stable over a wide range of pH, good compatibility.
- Wet surface treatment, coating evenly. Self-dispersing in water, which greatly reduces the difficulty of dispersion in water-based system.
- Water-based products would be very white, soft, silky, soft focus and cling to skin with Kingbornit aq.

Product Name	Product Code	Mean Particle Size	Application Description
Kingbornit aq 3002C	110103	З µт	O/W foundation Cream Emulsion
Kingbornit aq 500	110102	6 μm	O/W suncream  Mask  Toning cream



Contrast of before and after treatment



Contrast of added and not added Kingbornit aq.





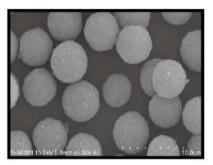
### THE SPHERICAL POROUS SILICA

Balance skin oil as honeycomb sponge.
Invisible fine lines instantaneously reverse the age of skin.

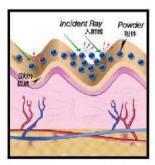


## Kingsica The SPHERICAL POROUS SILICA

- The patented technology for the synthesis of spherical porous silica, the performance indicators of particle size, flowability and oil absorption can be adjusted.
- High purity, high rate of spheroidization, uniform particle size, narrow size distribution and good flowability.
- Porousness, mesoporous, cut-through pore diameter and large pore volume, provide great adhesion to skin, which can soak up excess oil and reduce greasy feeling.
- The opitical effect enable the product to conceal fine lines and achieve matte effect.
- The amorphous silica is safe to use.

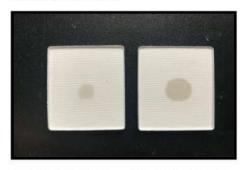


SEM image of silica



Optical effect conceal fine lines

Comparison: after a drop of artificial mixed seburn added to the surface at the same time.



Contains 3% Kingsica: the oil is absorbed, and the surface is dry

Blank: the oil is diffused on the surface, with obvious piliness.

Product Name	Product Code	Mean Particle Size	Oil Absorption (mL/100g)	Surface Treating Agent
Kingsica 3028	107137	З µт	102	
Kingsica 5028	107128	7 μm	90	1
Kingsica 1220	107122	12 µm	86	
Kingsica S150	107139	9 µm	150	]
Kingsica S250	107140	9 µm	250	
Kingsica 3028 AS	107143	3 µт	-	
Kingsica 5028 AS	107129	7 μm		- Triethoxycaprylylsilane
Kingsica 5028 FL	107141	7 μm		Perfluorooctyl Triethoxysilane
Kingsica 5028 MS	107138	7 μm	×	Methicone





## Kingruti TITANIUM DIOXIDE (Part.1)

- ⇒ High purity and safety.
- ★ A variety of surface treatment products to enhance the stability of the system.
- ❖ Various assortment to match different needs.



Труе	Product Name	Product Code	Mean Particle Sîze	Whiteness	Surface Coating Agent
	Kingruti T-02	106402	420 <i>nm</i>	≥91	Aluminum Hydroxide
	Kingruti T-06	106403	360 <i>nm</i>	≥91	Aluminum Hydroxide Silica
Rutile	Kingruti T-48	106404	400 <i>nm</i>	>90	Aluminum Hydroxide
name	Kingruti T-60	106410	210 nm	≥92	Aluminum Hydroxide
	Kingruti T-90	106411	280 <b>nm</b>	≥92	Aluminum Hydroxide Silica
	Kingruti CR50	106419	250 <i>nm</i>	≥92	Aluminum Hydroxide
Anatase	Kingruti T-01	106416	200 <i>nm</i>	≥92	
, mataoo	Kingruti T-04	106421	220 <b>nm</b>	≥90	



### Kingruti TITANIUM DIOXIDE (Part.2)

Product Name	Product Code	Mean Particle Size	Whiteness	Surface Coating Agent				
Triethoxycaprylylsilane s	surface treatment							
Kingruti 02 AS	106532	420 nm	≥91	Aluminum Hydroxide				
Kingruti 0205 AS	106533	210 <i>nm</i>	≥92	Aluminum Hydroxide				
Kingruti 08 AS	106534	400 nm	≥90	Aluminum Hydroxide				
Kingruti CR50 AS	106535	250 nm	≥92	Aluminum Hydroxide				
Kingruti 0201 AS	106552	200 nm	≥90					
Dimethicone surface tre	eatment							
Kingruti 02 SI	106502	420 nm	≥91	Aluminum Hydroxide				
Kingruti 0205 SI	106506	210 <i>nm</i>	≥92	Aluminum Hydroxide				
Kingruti 08 SI	106507	400 nm	≥90	Aluminum Hydroxide				
Kingruti CR50 SI	106508	250 nm	≥92	Aluminum Hydroxide				
PPG-26-Buteth-26 & La	PPG-26-Buteth-26 & Laureth-4 surface treatment							
Kingruti aq LK08	106554	300 nm	≥88	Aluminum Hydroxide Silica				
Silica surface treatment								
Kingruti aq 90	106541	280 nm	≥90	Aluminum Hydroxide Silica				



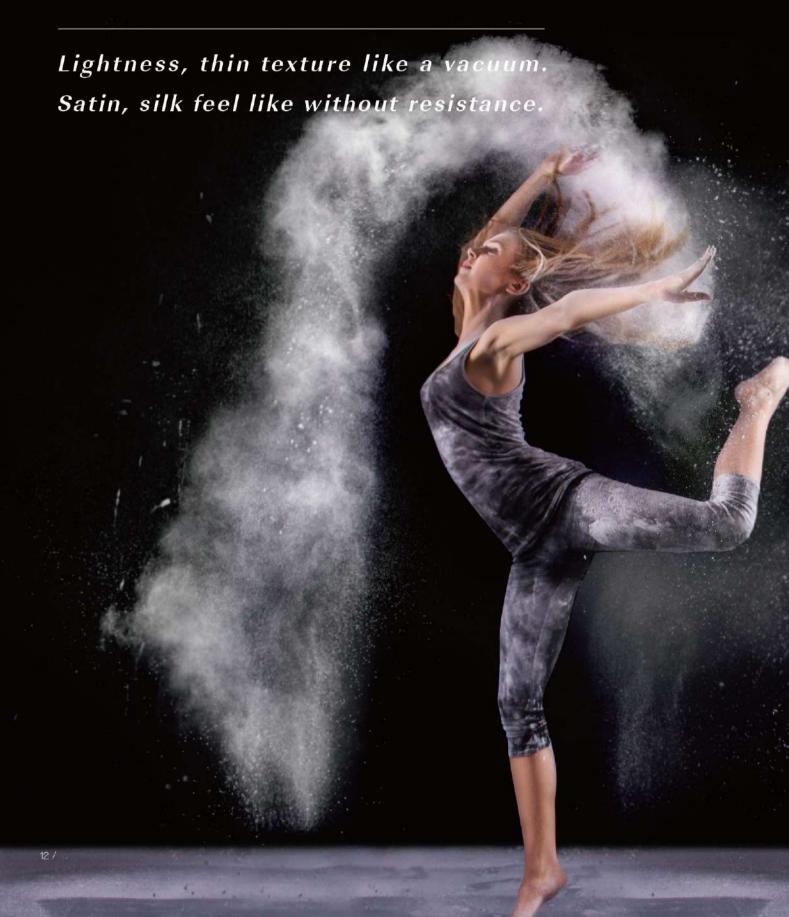
- ⇔ Good plasticity, good adhesion.

Product Name	Product Code	Mean Particle Size	Surface Treating Agent
Kingaolin 5000	106324	2 μm	
Kingaolin 5000 AS	106325	2 µm	Triethoxycaprylylsilane
Kingaolin GL03  New Comply with global regulations	106329	3 µт	

### Application Description

Widely used in facial masks, pressed powder, laundry sheets and other product formulations.

### WET PROCESSING TALC



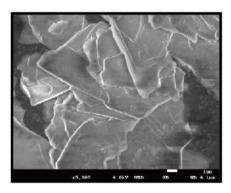


The Patent No. of China: ZL 201610249203.3

## WET PROCESSING TALC

- High radius-thickness ratio, obviously improve physical and mechanical properties.
- High quality gloss, silky as satin.
- Smooth tactility, good skin adhesion.
- Higher purity, good transparency.
- Special screening classification, narrow particle size, concentrated in particle size distribution.
- Layer surface is smooth, no scratches, no edge angle, optical effect is excellent.
- High safety, no asbestos, almost does not contain heavy metals.





SEM image of wet processing talc

Product Name	Product Code	Mean Particle Size	Specific Surface Area (m²/g)	Oil Absorption (mL/100g)	Application Description
No surface treatment					
Kingtalfer SF-1250	106138	8 µm	7	62	Ultra fine talc with high radius-thickness ratio, soft and smooth gloss, higher purity, was widely used in color cosmetics like eye shadow, lipstick, powdery, eyebrow pencil and foundation etc.
Triethoxycapıylylsilane su	rface treatment			*	·
Kingtalfer SF-1250 AS	106142	8 µm	5		Excellent oil dispersibility, soft and glossy, can be used in cosmetic products that need waterproof effect.

### DRY PROCESSING TALE

Purity, selected natural white and smooth like jade.

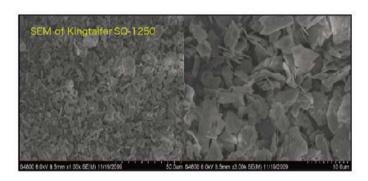
Exquisite, screening uniform distribution between pinpoint



### Kingtalfer TALC

### customizable

- High quality light pink mine, high whiteness, high purity.
- Processing technology for cosmetic talcum powder, concentrated in particle size distribution.
- No asbestos, almost does not contain heavy metals.





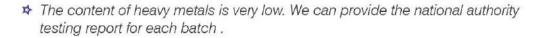
Product Name	Product Code	Mean Particle Size	Specific Surface Area (m²/g)	Oil Absorption (mL/100g)	Surface Treating Agent		
Sort SQ-Light pink mine							
Kingtalfer SQ-1250	106126	8 µm	7	56			
Kingtalfer SQ-2500	106127	5 μm	10	68			
Kingtalfer SQ-1250 AS	106143	8 µm	5		Triothovycopnyklailana		
Kingtalfer SQ-2500 AS	106144	5 μ <b>m</b>	7	3 <del>-1-1</del> -	Triethoxycaprylylsilane		
Kingtalfer SQ-1250 SI	106115	8 µm	5	18 <u>-11-11-11</u>	D. W.		
Kingtalfer SQ-2500 SI	106116	5 μm	7		Dimethicone		
Kingtalfer SQ-1250 FL	106160	8 µm	5		Deff.		
Kingtalfer SQ-2500 FL	106161	5 μ <b>m</b>	7	· · · · · · · · · · · · · · · · · · ·	Perfluorooctyl Triethoxysilane		



### Kingtalfer TALC

### customizable

- ☼ Choose high quality mine and adopt the processing specialized for cosmetic talc.
- ➡ High whiteness, high purity, good cost performance.





Product Name	Product Code	Mean Particle Size	Specific Surface Area (m²/g)	Oil Absorption (mL/100g)	Surface Treating Agent	
Sort LS-Light green min	e					
Kingtalfer LS-325	106134	16 <i>µm</i>	3	40		
Kingtalfer LS-800	106139	12 <i>µm</i>	5	63		
Kingtalfer LS-1250	106132	8 µm	6	62		
Kingtalfer LS-2500	106133	5 µm	8	81		
Kingtalfer LS-800 AS	106145	12 <i>µm</i>	3			
Kingtalfer LS-1250 AS	106140	8 µm	5	-	Triethoxycaprylylsilane	
Kingtalfer LS-2500 AS	106141	5 µm	7			
Kingtalfer LS-1250 SI	106118	8 µm	5			
Kingtalfer LS-2500 SI	106119	5 µm	7		Dimethicone	
Kingtalfer LS-1250 FL	106162	8 µm	5	<del>19 - 11</del>		
Kingtalfer LS-2500 FL	106163	5 µm	7	-	Perfluorooctyl Triethoxysilane	
Kingtalfer LS-1250 MM	106173	8 µm	3	-	Magnesium Myristate	

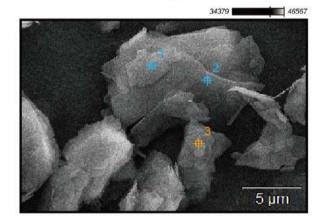


## Kingtalfer TALC TREATED BY LAUROYL LYSINE

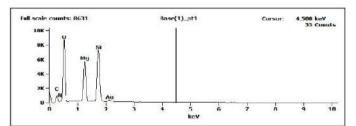
- \* Kingpowder's special wet precipitation coating process, ensures the talc to be coated evenly.
- It is very easy to disperse in oil and has excellent hydrophobicity.
- ➡ Ultra high lubricity, soft as silk, excellent skin affinity.
- Give the products elegant sense, to make it light, soft and fine. To enjoy the glossy and pretty skin.

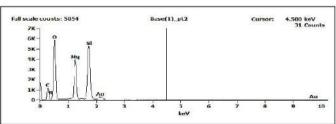
Product Name	Product Code	Mean Particle Size	Specific Surface Area (m²/g)	Surface Treating Agent	
Kingtalfer 1250 LL	106168	8 µm	4		
Kingtalfer 2500 LL	106169	5 µm	5	Lauroyl Lysine	

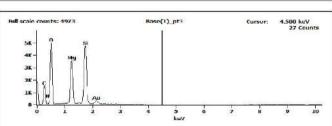
#### Base(1)



The talc coated uniformly by the treating agent









## Kingcovite WET PROCESSING MICA



- ★ Wet milling stripping, lamellar structure remains intact.
- Microscopic scales of crystal.
- ☼ Concentrated in particle size distribution, high radius-thickness ratio, soft and smooth hand feeling.

Sort	Product Name	Product Code	Mean Particle Size	Surface Treating Agent
	Kingcovite 51	106234	12 µm	
	Kingcovite 57	106238	10 µm	e <del></del>
	Kingcovite 5901  Matte Sericite	106286	12 μm	
Sericite	Kingcovite 51 AS	106220	12 µm	
Corronto	Kingcovite 57 AS №w	106283	10 μm	Triethoxycaprylylsilane
	Kingcovite 5901 AS  Matte Sericite	106291	12 μm	
	Kingcovite 51 FL	106256	12 μm	Perfluorooctyl Triethoxysilane
	Kingcovite 51 LL	106269	12 µm	Lauroyl Lysine
	Kingcovite 25	106224	10 μm	
Mica	Kingcovite 28 AS	106218	10 µm	Triethoxycaprylylsilane
	Kingcovite 28 FL	106254	10 μm	Perfluorooctyl Triethoxysilane
	Kingcovite 71	106233	20 µm	
Synthetic	Kingcovite 75	106274	10 µm	
Fluorphlogopite	Kingcovite 71 AS	106266	20 µm	Triethoxycaprylylsilane
Reach	Kingcovite 75 AS	106272	10 μm	тетохусартууллане
	Kingcovite 71 LL	106267	20 μm	Lauroyl Lysine
	Kingcovite 53	106235	12 μm	
Composite Mica	Kingcovite 53 AS	106205	12 μm	Triethoxycaprylylsilane

# COSLLARY PRE-DISPERSED SLURRY

High content, together with good stability, enables your creation beyond whatever you imaged.

Different surface treatment powder and dispersion medium pigment dispersion can be customized.



The Patent NO. of China: ZL 201510779851.5

## Cosllary

### PRE-DISPERSED SLURRY

- ★ We can completely disperse and evenly grind the powder, by adopting the unique pigment surface treatment technology and high pressure nanoparticle dispersion technology.
- The pigment powder is highly dispersed to improve the tinting strength, the texture and system stability.
- According to the formula system and product performance, different surface treatment agents and disperse medium can be customized for highly matched pigment dispersion.

### **OIL-BASED SLURRY**

3 700 700 1		Product		Pigment			Regu	lation		
Sort	Product Name	Code	Color	Content	Cl No.	CN	EU/ASEAN	USA	JP	KR
	Cosllary 347Y	131046	Yellow Iron Oxide	60%	CI 77492	1	I	EA	а	i
AS Treatment	Cosllary 116R	131027	Red Iron Oxide	60%	CI 77491	1	I	EA	а	i
Isononyi Isononanoate Dispersion Medium	Cosllary 922B	131019	Black Iron Oxide	70%	Cl 77499	1	I	EA	а	i
	Cosllary 867W	131047	Titanium Dioxide	75%	Cl 77891	1	I	EA	a	i
	Cosllary 3491Y	131042	Yellow Iron Oxide	50%	CI 77492	1	I	EA	а	i
AS Treatment + Cyclopentasiioxane	Cosllary 1191R	131043	Red Iron Oxide	55%	CI 77491	1	I	EA	a	i
Dispersion Medium	Cosllary 9291B	131044	Black Iron Oxide	60%	CI 77499	1	I	EA	а	i
	Cosllary 8691W	131045	Titanium Dioxide	75%	CI 77891	1	I	EA	a	i



## Cosllary PRE-DISPERSED SLURRY

### **OIL-BASED SLURRY**

		Product		Pigment			Re	gulation		
Sort	Product Name	Code	Color	Content	Cl No.	CN	EU/ASEAN	USA	JP	KR
	Cosllary 343Y DSG	131029	Yellow Iron Oxide	50%	Cl 77492	1	1	EA	а	i
New  DSG Treatment	Cosllary 117R DSG	131030	Red Iron Oxide	50%	CI 77491	1	I	EA	а	i
Isononyl Isononanoate Dispersion Medium	Cosllary 923B DSG	131031	Black Iron Oxide	65%	Cl 77499	1	I	EA	а	i
	Cosllary 865W DSG	131032	Titanium Dioxide	85%	CI 77891	1	I	EA	а	i

### ORGANIC PIGMENT & LAKE WATER-BASED SLURRY

						Regu	lation		
Product Name	Product Code	Color	Pigment Content	CI No.	CN	EU/ASEAN	USA	JP	KR
Cosllary aq 370Y	132105	Yellow	25%	Cl 11680	O	п		b	ii
Cosllary aq 170R	132106	Red	30%	Cl 12490	2	I	leas!	(553)	ii ii
Cosllary aq 570BL	132107	Blue	30%	Cl 74160	2	I		b	ii
Cosllary aq 381Y	132124	Yellow 5 Lake	15%	Cl 19140:1	1	I	EA	а	i
Cosllary aq 582BL	132123	Blue 1 Lake	30%	Cl 42090:2	1	I	EA	а	i
Cosllary aq 181R	132125	Red 40 Lake	20%	Cl 16035:1	1	1	EA	777.7	i

With the advantages of bright color and pure chromaticity, Cosllary can be used to mix colors freely, design colorful and gorgeous make-up.

Excellent fluidity and very easy to add.

It is suitable for formulating eyeliner, mascara, nail polish, soap and other cosmetic products.



### INORGANIC PIGMENT WATER-BASED SLURRY

20 V 200	700 W 1700 W	5000	100 DEST 100 DE	200000	Regulation				
Product Name	Product Code	Color	Pigment Content	Content Cl No.	CN	EU/ASEAN	USA	JP	KR
Cosllary aq 848W	132112	Titanium Dioxide	60%	Cl 77891	1	I	EA	а	i
Cosllary aq 610R	132101	Red Iron Oxide	30%	CI 77491	1	I	EA	а	i
Cosllary aq 630Y	132102	Yellow Iron Oxide	30%	CI 77492	1	I	EA	а	i
Cosllary aq 650BL	132118	Ferric Ammonium Ferrocyanide	25%	CI 77510	1	I	EXTEA	а	i
Cosllary aq 692BR	132104	Brown	30%	CI 77491 CI 77492 CI 77266	1	ш	MU	а	i

Outstanding fluidity, easy to add and disperse by simply stirring.

It is very suitable for formulations of eyeliner, mascara, water-based nail polish and so on.

### HIGH WATERPROOF EYELINER SPECIALIZED WATER-BASED SLURRY

765 F 1781		Cal V	THE WAY IT IN	200		Regi	ulation		e .
Product Name	Product Code	Color	Pigment Content	CI No.	CN	EU/ASEAN	USA	JP	KR
Carbon Black W-889	103041	Carbon Black	35%	CI 77266	1				
Carbon Black W-885	103043	Carbon Black	30%	CI 77266	1	ш	MU	а	i
Cosllary aq 691BR	132113	Brown	30%	CI 77491 CI 77492 CI 77266	1	147		-	1
Cosllary aq 171R	132114	Red	20%	CI 12490	2	I		<del>100</del>	iii
Cosllary aq 572BL	132119	Blue	30%	CI 74160	2	I	5550	ь	ii
Cosllary aq 271R N≅w	132120	Carmine	20%	CI 75470	1	I	EA	а	i

Specially designed pigment dispersion can greatly enhance the water resistance and friction resistance of eyeliner products, which effectively extends the makeup time.

Outstanding fluidity, easy to add and disperse by simply stirring.

#### Note:

CN	EU/ASEAN	USA	JP	KR
7: Permitted in all cosmetics.	I: Permitted in all cosmetics.	EA: For coloring cosmetics generally, including cosmetics intended for use in the area of the eye.	a: Permitted in all cosmetics.	Permitted in all cosmetics.
Permitted in all cosmetics except as half dye.	It: Permitted exclusively in cosmetic products intended not to come into contact with the mucous membranes.	EXTEA: For coloring externally applied cosmetics, including cosmetics intended for use in the area of the eye.	Permitted for externally applied cosmetics not applied to mucous membranes.	ii: Can not be applied to eye area and lips.
Permitted exclusively in cosmetic products intended not to come into contact with the mucous membranes.	Permitted in all cosmetics except in applications that may lead to exposure of the end-user's lungs by inhelation	MU: For coloring the fullowing cosmetics only: eyeliner brush-on-brow, eye shadow, mascara, ilipstick, blushors and rouge, make-up and foundation, and nati ename.		is: Only for solid soap for face wash.

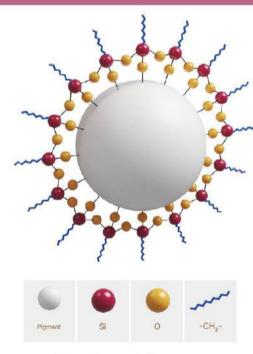




## Kingpigment VARIOUS SURFACE TREATMENT PIGMENTS

- Wet processing technology, makes the coating more evenly.
- Improve the dispersibility and stability of pigments in the formula system.
- Provide "customized" service, tailor a variety of surface treatment products according to the formula system and performance requirements.

#### Triethoxycaprylylsilane Surface Treatment



Effect diagram of AS treatment

When AS silane is applied, the coating is deposited by the reaction of silanol and the substrate. The "Si-OR" group is hydrolyzed to silanol (Si-OH), and the alkyl silane can be self-associated or connected to the surface of the pigment with hydrogen bonds, so that a stable chemical bond is formed between the pigment and the treatment agent after consolidation. The powder treated with triethoxycaprylylsilane has very low surface tension, and has good wettability in low and medium polarity, and non-polar synthetic ester, mineral oil, and silicone oil, which can effectively reduce the need for oil volume for powder wetting, and allows a higher pigment loading. It eliminates the adverse effects of agglomeration of many inorganic pigments on the rod-shaped structure, and improves the compatibility between the dispersed solids and the carrier, so it is beneficial to stabilize the formulation of rod/powder products such as lipstick, eye shadow and foundation.

- Soft and smooth skin feeling.
- \* Excellent hydrophobicity.
- Easily disperse in oil and silicone.
- Low oil absorption, which can increase the pigment content in the system.
- Suitable for all kinds of cosmetics.

Product Name	Product Code	Color	Cl No.
Kingruti 90 AS	106537	Titanium Dioxide	CI 77891
Kingpigment 116R AS	112307	Red Iron Oxide	CI 77491
Kingpigment 340Y AS	112304	Yellow Iron Oxide	a 77492
Kingpigment 920B AS	112305	Black Iron Oxide	CI 77499



#### Methicone Surface Treatment

- Chemical bonding, shear-resistant coating, wide application range of pH and temperature.
- Excellent waterproof effect, excellent dispersibility in silicone oil, suitable for W/Si system.
- Good resistance to agglomeration, strong powdery texture, excellent fluidity, suitable for pressed powder and loose powder.
- \* Suitable for makeup products such as pressed powder, eye shadow and loose powder.



Effect diagram of MS treatment

When MS siloxane is applied, polydimethylsiloxane absorbs trace water on the surface of the pigment, hydrolyzes "Si-H" into silanol (Si-OH), and forms Si-O covalent chemical bond to connect to the surface of the pigment after consolidation. The formed MS coating is highly hydrophobic and can be well wetted in oil esters, especially silicone oils. The MS treated powder appears to be relatively dry, with a particularly strong powdery texture, enhanced spreadability on the skin, and anti-agglomeration. The powder after MS treatment is particularly loose, so it is especially suitable for powder and W/Si formulations.

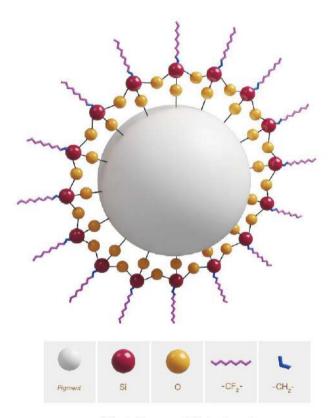
Product Name	Product Code	Color	CI No.
Kingruti 90 MS	106549	Titanium Dioxide	CI 77891
Kingpigment 116R MS	112326	Red Iron Oxide	CI 77491
Kingpigment 340Y MS	112325	Yellow Iron Oxide	CI 77492
Kingpigment 920B MS	112327	Black Iron Oxide	CI 77499



#### Perfluorooctyl Triethoxysilane surface treatment

- Shear-resistant coating & chemical bonding.
- Long-lasting makeup, prevent sebum and sweat from damaging makeup.
- Suitable for makeup products such as loose powder, pressed powder, eye shadow, etc.
  - When FL silane is applied, the coating is deposited by the reaction of silanol and the substrate. The "Si-OR" group is hydrolyzed to silanol (Si-OH), and the alkyl silane can be self-associated or connected to the surface of the pigment with hydrogen bonds, so that a stable chemical bond is formed between the pigment and the treatment agent after consolidation. Unlike AS treatment, FL treated powder has a lower surface tension than AS. The FL treated pigment not only has strong hydrophobicity, but also has oleophobicity, which allows the powder to remain stable even under special circumstances, especially in pressed powder formulations.

- Extremely strong hydrophobic and oleophobic effect.
- Smooth and soft, easy to spread.



Effect diagram of FL treatment

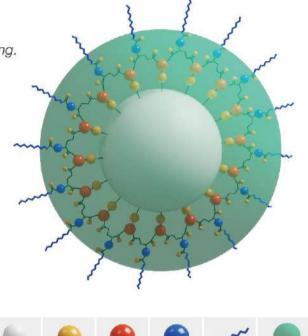
Product Name	Product Code	Color	CI No.
Kingruti T-90 FL	106516	Titanium Dioxide	CI 77891
Kingpigment F-116R	112322	Red Iron Oxide	CI 77491
Kingpigment F-340Y	112314	Yellow Iron Oxide	CI 77492
Kingpigment F-920B	112315	Black Iron Oxide	CI 77499



#### Disodium Stearoyl Glutamate Surface Treatment

- Amino acid surface treatment.
- ★ Weak acidity, excellent skin affinity, creamy skin feeling.
- Excellent waterproof effect.
- Excellent color developing performance, excellent lipophilicity, fine and smooth, non-floating.

With wet precipitation DSG coating process, a layer of organic shell of disodium stearoyl glutamate is deposited on the surface of each particle to form a unique "core-shell" structure. The coated amino acid shell provides excellent hydrophobicity, so that the DSG treated powder is easily dispersed in the oil and emulsified in a coordinated manner. DSG treatment can enhance color saturation and product texture. The DSG treated powder can be used in foundation, ointment and powder products.



Effect diagram of DSG treatment

Product Name	Product Code	Color	Cl No.
Kingruti 90 DSG	106546	Titanium Dioxide	Cl 77891
Kingpigment 116R DSG	112319	Red Iron Oxide	Cl 77491
Kingpigment 340Y DSG	112320	Yellow Iron Oxide	CI 77492
Kingpigment 920B DSG	112321	Black Iron Oxide	CI 77499

#### Lauroyl Lysine Surface Treatment



- Wet amino acid surface treatment.
- Soft and lubricating, excellent skin affinity.
- Easily disperse in oil, excellent hydrophobicity.
- Good skin adhesion and abrasion resistance.



Effect diagram of LL treatment

With wet precipitation LL coating process, one or more layers of lauroyl lysine organic flake interlayer is deposited on the surface of each particle. LL treated powder has good hydrophobicity and lipophilicity, silky texture, excellent compression resistance and good skin adhesion. After LL treatment, the powder has higher oxidation resistance, heat resistance and safety, which is suitable for all kinds of cosmetics.

Product Name	Product Code	Color	CI No.
Kingruti 90 LL	106539	Titanium Dioxide	Cl 77891
Kingpigment 116R LL	112323	Red Iron Oxide	Cl 77491
Kingpigment 340Y LL	112309	Yellow Iron Oxide	CI 77492
Kingpigment 920B LL	112310	Black Iron Oxide	Cl 77499

#### Hydrogenated Lecithin Surface Treatment



- Natural surface treatment agent, moisturizing and nourishing.
- Excellent hydrophobicity, quickly and evenly dispersed in oil without grinding.
- Soft and silky touch, high skin affinity.
- Emulsifying performance, improving stability in the system.

With wet precipitation HL coating process, a layer of hydrogenated lecithin is coated on the surface of each particle. The powder coated with hydrogenated lecithin has excellent skin affinity, and improved softness and silkiness. Moreover, the hydrogenated lecithin treated powder is easy to disperse in the oil phase, and can help to emulsify, which is especially suitable for preparing the excellent skin feeling products like liquid foundation, ointment, pressed powder, and loose powder.

Product Name	Product Code	Color	Cl No.
Kingruti 48 HL	106553	Titanium Dioxide	CI 77891
Kingpigment 116R HL	112348	Red Iron Oxide	CI 77491
Kingpigment 340Y HL	112347	Yellow Iron Oxide	CI 77492
Kingpigment 920B HL	112349	Black Iron Oxide	CI 77499



### Magnesium Myristate Surface Treatment Now

- Wet metallic soap surface treatment.
- ♣ Good skin adhesion and abrasion resistance.
- Preferable waterproof effect.
- Soft and silky texture.

With wet precipitation MM coating process, one or more layers of magnesium myristate organic flake interlayer is deposited on the surface of each particle. The MM treated powder has excellent hydrophobicity and lipophilicity, and can provide silky texture, compression resistance and good skin adhesion. It is recommended for powder or ointment systems.

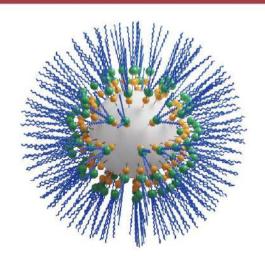




Effect diagram of MM treatment

Product Name	Product Code	Color	CI No.
Kingruti 90 MM	106550	Titanium Dioxide	Cl 77891
Kingpigment 116R MM	112332	Red Iron Oxide	Cl 77491
Kingpigment 340Y MM	112331	Yellow Iron Oxide	CI 77492
Kingpigment 920B MM	112333	Black Iron Oxide	Cl 77499

### Isopropyl Titanium Triisostearate Surface Treatment



Effect diagram of TTS treatment

- Ultra-low oil absorption, increase the pigment loading in the formula.
- Easily disperse in various greases, including highly polar greases.
- Strong waterproof effect.
- Soft feeling, beneficial to powder compaction.



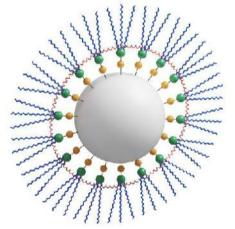


When TTS titanate is applied, the "Ti-OR" bond is readily hydrolyzed and becomes extremely active, bonding to the reactive groups (-OH) on the powder surface to form stable chemical bonds to the pigment surface. The TTS treatment allows the powder surface to be oriented with dense fatly acid groups and therefore well wettable by most organic components, including some highly polar oils and fats. Compared with AS (Triethoxyoctylsilane) treated powder, the oil absorption of TTS is significantly lower, which can provide higher filling capacity. Powder treated by TTS can be applied in low viscosity primers, high covering foundation, lipsticks, lip glazes, eyebrow pencils, and powder products.

Product Name	Product Code	Color	Cl No.
Kingruti 90 TTS	106551	Titanium Dioxide	Cl 77891
Kingpigment 116R TTS	112335	Red Iron Oxide	Cl 77491
Kingpigment 340Y TTS	112334	Yellow Iron Oxide	CI 77492
Kingpigment 920B TTS	112336	Black Iron Oxide	Cl 77499

#### Isopropyl Titanium Triisostearate & Dimethicone Surface Treatments

Presenting the advantages of silicone oil and titanate surface treatments.



Effect diagram of TTD treatment

Superb dispersibility, suitable for a wide range of dispersion media, such as silicone oil, esters, and hydrocarbons.

TTD surface treatment, unlike the TTS and SI surface treatment, grafts titanate on the silicone oil chain by pre-cross-linking, and finally forms a stable chemical bond to the pigment surface through silicone oil chain bonding. Powder treated by TTD has features of both silicone oil treatment and titanate treatment. Compared with TTS and SI treated powder, the TTD has ultra-low oil absorption, and is well wetted and dispersed in silicone oil; at the same time, it also has the stability of silicone oil to make up for the unstable defects of single titanate ester under acidic conditions.



Product Name	Product Code	Color	Cl No.
Kingruti 90 TTD	106545	Titanium Dioxide	Cl 77891
Kingpigment 116R TTD	112324	Red Iron Oxide	Cl 77491
Kingpigment 340Y TTD	112317	Yellow Iron Oxide	CI 77492
Kingpigment 920B TTD	112318	Black Iron Oxide	Cl 77499





## Nano CARBON BLACK PRE-DISPERSION

- High carbon black content and strong coloring ability.
- Excellent water-based carbon black dispersion, with good liquidity and stability.
- No dust and no pollution. The product is easy to operate and be added directly with stirring into formulation.

Product Name	Product Code	Content	Mean Particle Size of Carbon Black(nm)	Total PAHs	Regulation	Application Description
Carbon Black W-306	103037	30%	20-30	PAHs≤500ppb		
Carbon Black W-386	103036	30%	20-30	Benzo[a]pyrene≪5ppb  Dibenz[a,h]anthracerie≪5ppb	Comply with EU regulations	Easily apply to mascara, liquid eyeliner, etc.
Carbon Black W-686	103034	30%	20-30	( <del></del>	Comply with Chinese regulations	

## Dispersibility (as shown below)











#### Dispersion experiments:

The right beaker of each picture is Nano carbon black dispersion from KingPowder, the left one is the same kind of product from market.

#### Testing method:

1 drop (0.05g) of the carbon black dispersed droplet into 100ml of distilled water, observe their dispersing processes under the condition of no stirring in water.

#### Testing result:

In dispersing time, dispersion uniformity and persistent time, nano carbon black dispersion from Kingpowder is superior to similar marketing products.





The Patent NO. of China: ZL 201710126579.X

# **GRAPHENE WATER-BASED DISPERSION Graphene S004**

- Extra large specific surface area: good colour rendering, strong adsorption capacity, could clean the skin effectively.
- O Special optical property: grey black with pearlescent light, excellent photostability.
- O Unique dimensional structure: it's bacteriostatic and bactericidal.
- Transparent laminated structure: effectively absorbs UV over a wide range of wavelengths.
- O It's easy to disperse and convenient to add with good fluidity.

Product Name	Product Code	Application Description
Graphene S004	133002	It can be a product appearance colorant, a substitution for bamboo charcoal, carbon black, iron black and water-based black dyes, and it can also be added to light protection products.









## NanoT Nano TiO<sub>2</sub> PRE-DISPERSION

Product <b>Na</b> me	Product Code	Powder Content	Primary Particle Size	Dispersion Medium
NanoT 1045	103076	45%	10 nm	C12-15 Alkyl benzoate
NanoT 4015	103080	40%	15 <i>nm</i>	C12-15 Alkyl benzoate
NanoT 2355	103077	55%	30 nm	Dimethicone
NanoT 4513	103001	50%	50 <i>nm</i>	C12-15 Alkyl benzoate
NanoT 4528	103014	50%	50 <i>nm</i>	Dicaprylyl carbonate
NanoT 5030	103002	50%	30 nm	Water, Glycerin

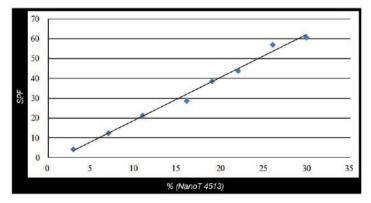
## The advantage of Nano T Nano titanium dioxide dispersion:

- Excellent UV screener, the same titanium dioxide content of NanoT titanium dioxide dispersion contribution on SPF value is far higher than that of titanium dioxide powder.
- The micro size evenly dispersed completely, no flocculation.
- High transparency, easy to spread on the skin and not whitening.
- Excellent fluidity, can be easily dispersed without high-speed stirring.
- Simplified formula and process.

## High quality NanoT dispersion, immediately improve the SPF performance as follow:

- Sunscreen cream
- Sunscreen lotion
- Day cream

- Foundation
- Anti-aging and whitening product



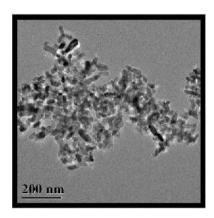
The in-vitro SPF data comes from KingPowder's lab, tested with Labsphere UV-2000S.



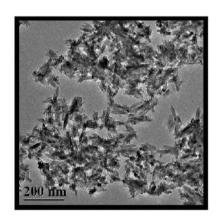
## NanoT Nano TiO<sub>2</sub> POWDER

- ➡ High purity, crystal pure, excellent pure rutile-type nano titanium dioxide. ➡ Narrow diameter distribution.

⇒ High transparency, high UV-shielding rate.



TEM image of NanoT N30E



TEM image of NanoT N15E



Product Name	Product Code	Primary Particle Size	Surface Treating Agent	Surface Property
NanoT N10E	103081	10 nm	Aluminium hydroxide & Isostearic acid	Lipophilic
NanoT N15E	103023	15 nm	Aluminium hydroxide & Stearic acid	Lipophilic
NanoT 23M	103021	30 nm	Silica & Triethoxycaprylylsilane	Lipophilic
NanoT N20E	103004	50 nm	Aluminium hydroxide & Stearic acid	Lipophilic
NanoT N30E	103017	30 nm	Aluminium hydroxide & Stearic acid	Lipophilic
NanoT S30W	103028	30 nm	Silica & Aluminium hydroxide	Hydrophilic
NanoT S25W	103005	30 nm	Silica	Hydrophilic



## NanoT Z Nano ZnO POWDER

- Excellent ultraviolet shielding function, adsorption of full-wave band of UVA and UVB.
- Superfine and uniform particle with high transparency.
- Excellent antibacterial and antimicrobial function.

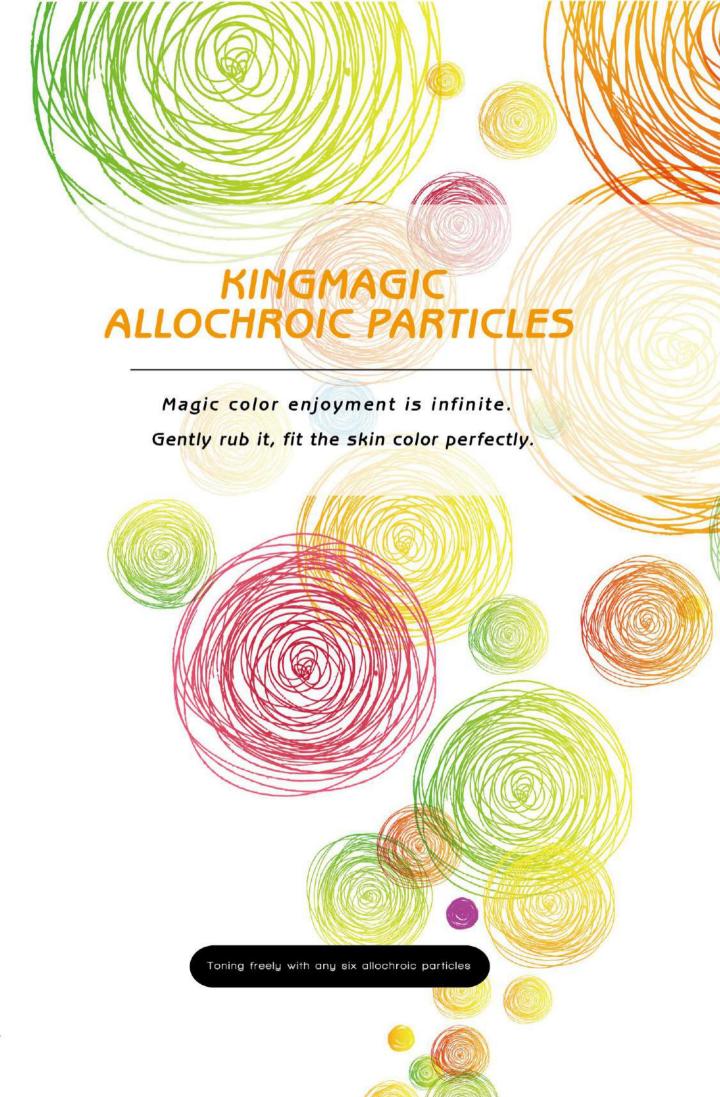
Product Name	Product Code	Primary Particle Size	Surface Treating Agent
NanoT Z-45	103065	50 nm	
NanoT Z-45 AS	103063	50 nm	Triethoxycaprylylsilane

## NanoT Z Nano ZnO PRE-DISPERSION

- Excellent fluidity, easy to add and disperse by simply stirring.
- High transparency, easy to spread on the skin and not whitening.
- It's dispersed completely by ultra-high pressure, no flocculation.



Product Name	Product Code	Powder Content	Primary Particle Size	Dispersion Medium
NanoT Z-6060 New	103079	60%	50 nm	C12-15 Alkyl benzoate
NanoT Z-6050	103078	50%	50 nm	Dimethicone







## KINGMAGIC ALLOCHROIC PARTICLES

- Advanced pigment coated technologies, derived from iron oxides, chromium oxide product.
- Application convenient, do not need to use special equipment.
- Magic effect, species diversity, which gives high cost-effective formula.
- ⇒ High safety, low heavy metal content.

Product Name	Product Code	Color
Kingmagic WB-160	108512	
Kingmagic WY-160	108513	
Kingmagic WR-160	108514	
Kingmagic WBr-160	108515	
Kingmagic WG-160	108516	
Kingmagic BS-160	108517	



#### Application Description

Applicable to any type of emulsion and cream (eg: W/O, O/W, W/Si, Si/W).

Magic allochronic particles should be input and stirred under 50  $^\circ\mathrm{C}$ , mixed by blade instead of homogeneous method.

All filtration process of the finished product should finish before the inputting of magic allochronic particles.

Caution: finish product filling before particles become soft, otherwise the breakage of particles may affect the product appearance.



Stable, colorful and beautiful.



## LIGHT RESISTANT WATER SOLUBLE DYES



KingPowder's light resistant dyes have good color stability and long-term light resistant performance. A variety of dyes, can be used in various water-based and water-alcohol system of personal care products. The recommended dosage is in the range of 0.05%-0.20%. KingPowder provides you with a perfect solution for discoloration of illumination.



Color of the 1% dilution

Color of 1%			j	Usa	ige				
aqueous solution	Product Name	Product Code	CI.No	pH Stable Range	Light Stability	USA	EU / CN	JP	KR
	Soapcolor R33 (Red 33)	117004	17200	3-11	会会会会会	М	1	I	i
	Soapcolor Y5 (Yelkow 5)	117005	19140	3-11	会会会会会	EA	1	I	i
	Soapcolor B5 (Blue 5)	117006	42051	9-12	会会会会会	222	1	200	222
	Kingcolor R40 (Red.40)	119015	16035	3-11	合合合合合	EA	1	ene.	i
	Kingcolor R33	119016	17200	3-11	合合合合合	М	1	I	i
	Kingcolor Y6 (Yellow 6)	119017	15985	3-11	合合合合	М	1	I	i
L L	Kingcolor Y5 (Yellow 5)	119018	19140	3-11	合合合合合	EA	1	I	i
	Kingcolor B1	119019	42090	3-11	会会会会	EA	1	I	i
	Kingcolor B5	119020	42051	9-12	会会会会会		1		
	Kingcolor V2 (violet 2)	119021	60730	3-11	含含含含含	EXT	3	IIb	ii

## Note:

USA	Europe/China	Japan	KR
M: It can be used in all cosmetics except eyes products.  EA: It can be used in all cosmetics include eyes products.  EXT: External use.	1: Color additives, can be used in all cosmetics. 2: Color additives, can be used in all cosmetics except eyes products. 3: Color additive, can be used in cosmetics that do not touch the mucous membrane.	I: Synthetic dyes, can be used in all medicines, generics and cosmetics.  II: Synthetic dyes, can be used in medicines, generics and cosmetics for external use.  IIa: Except the eyes.  IIb: Except the mucous membrane.	Permitted in all cosmetics.     Can not be applied to eye area and lips.

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