

Featheleve[®]

Effect Pigments



The world's leader in
quality effect pigment technology





Featheleve® Product Info.

- Platy TiO₂
- Glossy effect of TiO₂
- Very slow sedimentation due to light weight
- Smooth feeling and good coverage after application
- More clean shade & More whiteness
- Sunscreen effect : In-vivo tested
- Thermal Barrier Effect



Featheleve® PTM Product Info.

Metallic Effect Pigments

- Plate-like TiO₂ coated with iron oxide
- No separate dispersion process required
- Velvet feeling
- Good spreading
- Excellent adhesiveness
- Less powdery generation

High
QUALITY

Various
PRODUCTS

Timely
DELIVERY

Rational
PRICE

Rapid
FEED-BACK

Featheleve®

Effect Pigments

Featheleve® series are effect pigments with new concept.

Featheleve® series have a platy TiO₂ structure and this structure cannot be found in existing effect pigments.

Main component of these products is TiO₂ but these products display the features of effect pigments not pigments. These products have a special color, sparkling effect and feeling by structural features.

Also, these products are very light and can be used effectively in sedimentation considering formulations. By using these products with special features, you can develop new type cosmetics not existing.

Featheleve® seriesは新概念のeffect pigment製品です。

Featheleve® seriesは従来のeffect pigmentsでは見られなかったplaty TiO₂という独特な構造を有しています。

この製品の主要成分はTiO₂ですが、顔料の特性よりはeffect pigmentの特性を有しており、構造的な特徴によって従来のeffect pigments.では見られないカラー、光沢及び使用感を提供します。

また、パウダー粒子が非常に軽くて、沈殿する恐れがある製品に効果的に使用できます。Featheleve® seriesの特性を利用して製品開発に応用されると、従来にはなかった新しいTypeの優秀な化粧品の開発が可能になると考えられます。

Featheleve® 系列是一個新概念的效果珠光顏料。

Featheleve® 系列為去除基質的片狀二氧化鈦效果顏料，其獨特的功能是有現有的效果珠光顏料里獨一無二的產品。

Featheleve® 系列的主要構成成分為二氧化鈦，她擁有防紫外的效應，其輕柔的粉狀在應用上有防沉淀效應。她是似乎無光澤感效果顏料，而且塗布在皮膚質感非常滑順。Featheleve® 系列的特性除了彩妝應用以外，可帶動護膚系列先前未有的研發領域。

Special Features

- Platy TiO₂
- Glossy effect of TiO₂
- Very slow sedimentation due to light weight
- Smooth feeling and good coverage after application
- More clean shade & More whiteness
- Sunscreen effect : In-vivo tested
- Thermal Barrier Effect

- Platy TiO₂
- 光沢を有するTiO₂
- 軽さによる沈殿問題を改善
- 優秀な付着性及び隠ぺい力
- キレイな色及び優秀な白色度
- 紫外線カット効果— In-vivo 試験
- 遮熱効果

- 片状二氧化鈦
- 光澤感效應
- 輕柔可防沉
- 卓越貼服性與遮蓋性
- 純潔色彩
- 銀白效果佳
- 防紫外效應— In-vivo
- 熱障效應

Applications

- BB cream & Foundations
- Sunscreen products
- Skin care
- Loose powder & Compact powder
- Color cosmetics
- Bath and body products

- ビビクリーム、ファンデーション
- 紫外線カット製品
- スキンケア製品
- パウダー製品
- 入浴剤及び清潔用品

- 防晒霜系列
- BB霜，粉底，气垫
- 护肤品
- 粉類產品
- 沐浴，洗滌系列

Particle size distribution

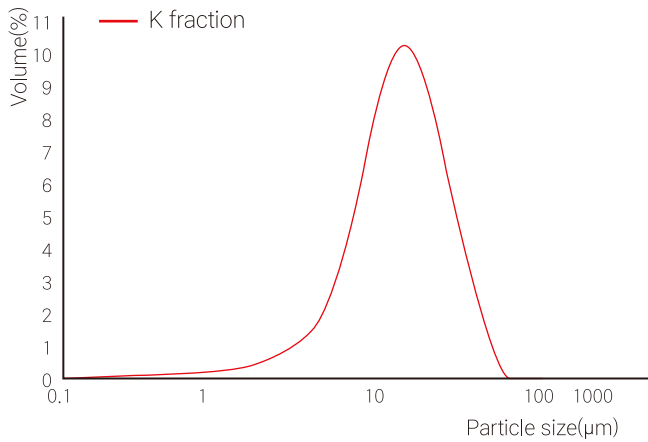


Fig 1.

Particle size distribution(PSD) of Featheleve® which has a range of 5–35μm(D10–D90)

SEM Image

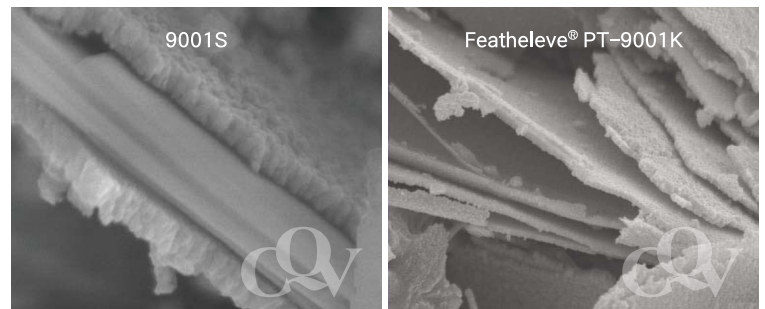


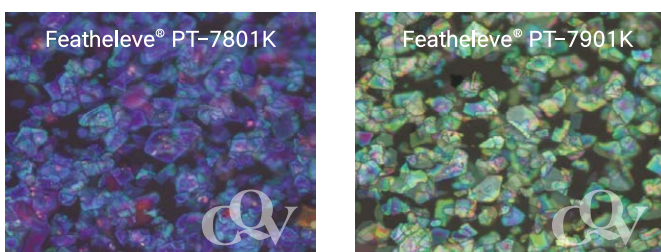
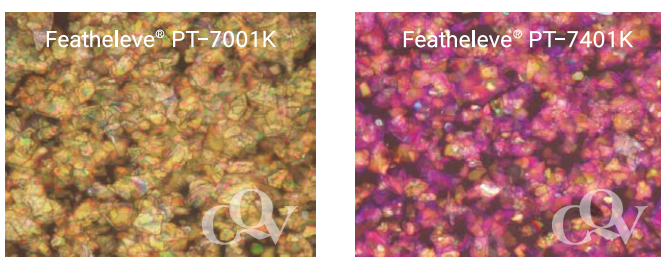
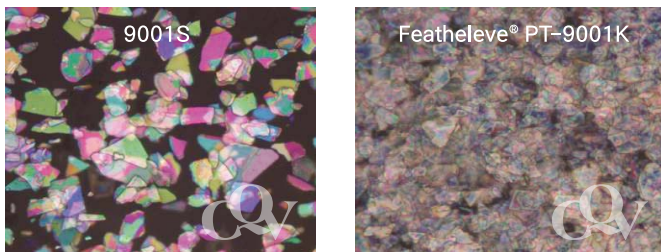
Fig 2.

Comparison between SEM images of Featheleve® and normal pearlescent pigments. This unique structure of Featheleve® gives softness on touch and better higing power.

Microscopic Images(500X)

Fig 3.

Within the same condision of cocentration(2%), Featheleve® has better coverage of certain area than normal pearlescent pigments. It also means that Featheleve® is very light in weight just like a feather.



The Validation of Sunscreen Effect

Table 1.

Clinical test results of BB cream applied with Featheleve® Product.

Cosmetic Product	Main Components	Content (%)	Clinical Test Results	
			SPF	PA
CQV UV Protection BB Cream	Featheleve® PT-9001K	7.0	31.9±2.2	8.3±1.3
	Titanium Dioxide	1.0		
	Ethylhexyl Methoxycinnamate	7.5		
	Zinc Oxide	5.0		

* CQV UV Protection BB Cream's SPF is 31.9 and PA is 8.3 (PA+++).

* Clinical institution: The Clinical Trial Center for Bio-Industry at Semyung University

Featheleve®

Effect Pigments



Featheleve®

Effect Pigments Technical Data

Code	Product Name	Particle Size(μm)		pH (10% Sol.)	Composition		
		(D10-D90)	(D50)		TiO ₂	SnO ₂	SiO ₂
Featheleve® PT-9001K	Featheleve®PT-9001K Real Pearl White	5 - 35	13 - 19	7 - 11	○	○	○
Featheleve® PT-7001K	Featheleve®PT-7001K Real Pearl Gold	5 - 35	10 - 16	7 - 11	○	○	○
Featheleve® PT-7401K	Featheleve®PT-7401K Real Pearl Red	5 - 35	10 - 16	7 - 11	○	○	○
Featheleve® PT-7801K	Featheleve®PT-7801K Real Pearl Blue	5 - 35	10 - 16	7 - 11	○	○	○
Featheleve® PT-7901K	Featheleve®PT-7901K Real Pearl Green	5 - 35	10 - 16	7 - 11	○	○	○

Featheleve® PTM

Metallic Effect Pigments

The Featheleve® PTM Series is metallic colored products using Featheleve® as a substrate.

The Featheleve® series consists of only a metal oxide coating layer with the substrate removed and the Featheleve® PTM Series is coated with a metal oxide (Fe₂O₃) in addition to the Featheleve®.

In other words, it is not an Effect Pigment product containing the same substrate as synthetic mica, but rather a product consisting only of metal oxides. Of course, this indicates the features of Effect Pigment due to the mutual effect of plate-like metal oxides, but it can be said to be quite a different concept.

It is a well-known fact that the substrate of Effect Pigment is plate-like, which is one of the basic conditions of Effect Pigment. Accordingly, we focused on the fact that Featheleve® products are plate-like from a macroscopic perspective and launched a product that applied Featheleve® as a substrate, which is the Featheleve® Metallic.

The main feature of the Featheleve® PTM Series is that it is an effect pigment that does not require a separate milling process.

Generally, pigments used in cosmetics go through a separate dispersion process (milling, etc.) before use as particles are aggregated, but the Featheleve® PTM series can be used without a dispersion process as it is already sufficiently dispersed.

The official color names of the Featheleve® PTM Series are Fine Gold, Orange, Coral, Red, Violet and Lime Gold.

Special Features

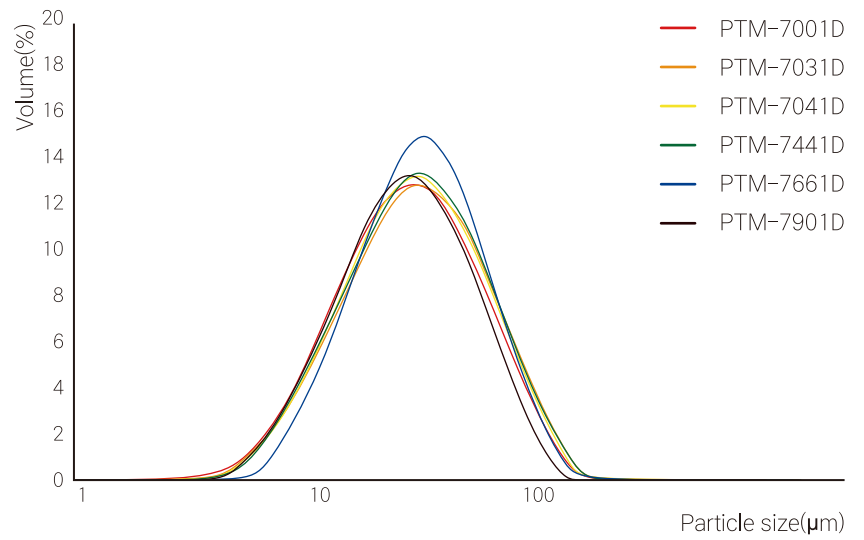
- Plate-like TiO₂ coated with iron oxide
- No separate dispersion process required
- Velvet feeling
- Excellent skin texture
- Excellent adhesiveness
- Unique pastel tone colors

Applications

- Basic cosmetics (toner, lotion, cream, etc.)
- UV protection products
- BB cream, foundation
- Nail enamel products
- Various beauty products

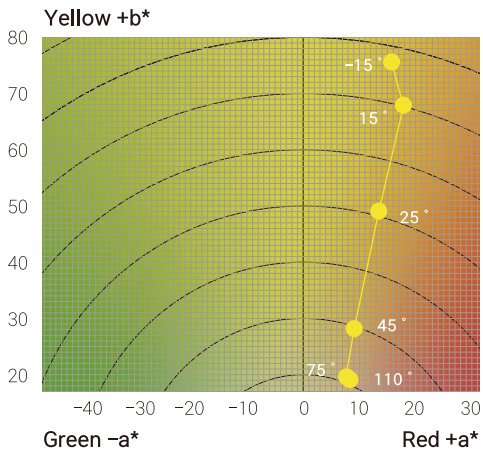


Particle size distribution

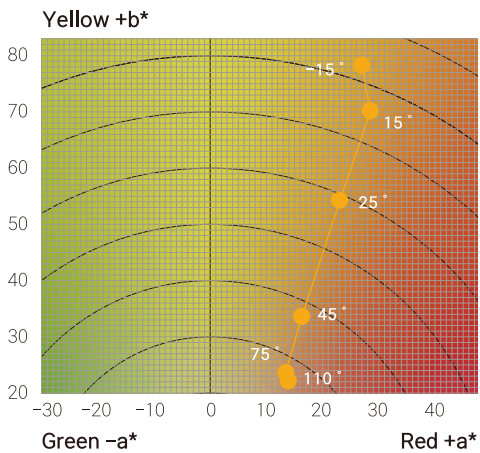


Color coordinates

pigments rate : 6wt%, on black background
 (-15°, 15°, 25°, 45°, 75°, 110°)



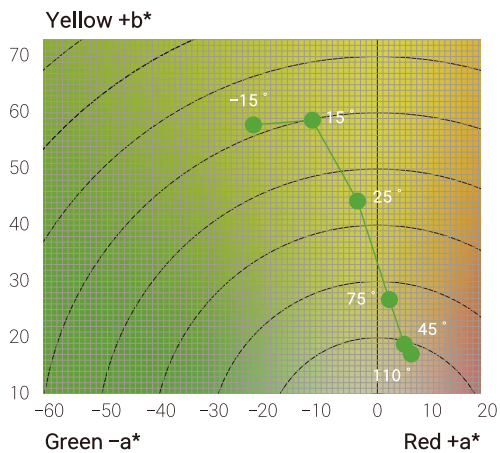
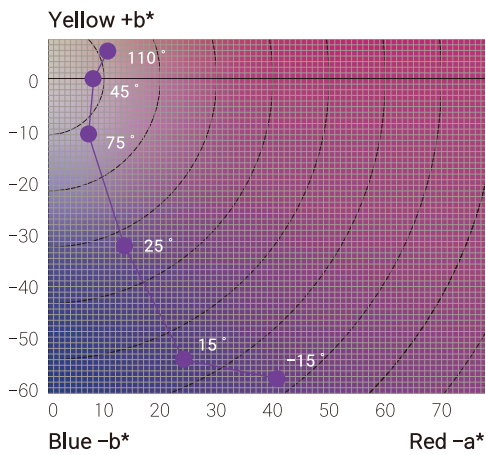
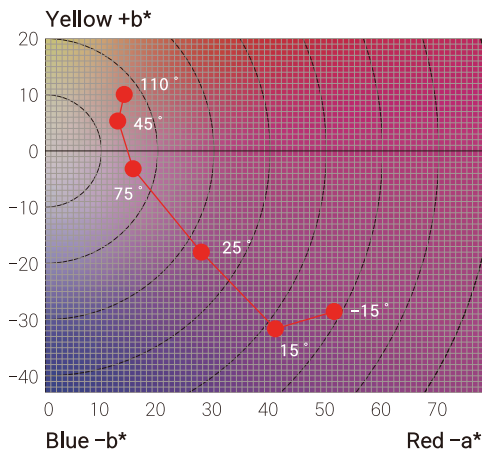
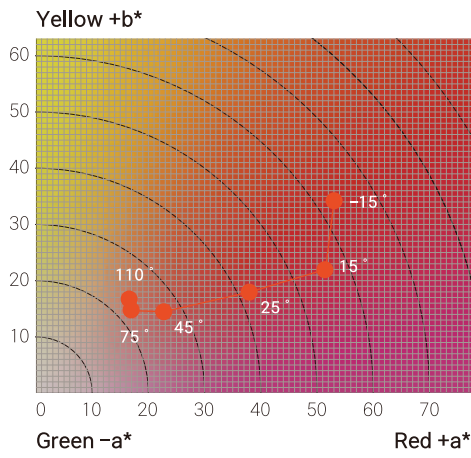
Featheleve® PTM Applications



Color coordinates

pigments rate : 6wt%, on black background
 (-15°, 15°, 25°, 45°, 75°, 110°)

Featheleve® PTM Applications



Featheleve® PTM

Metallic Effect Pigments



Featheleve® PTM

Metallic Effect Pigments Technical Data

Code	Product Name	Particle Size(μm)		pH (10% Sol.)	Composition			
		(D10-D90)	(D50)		TiO ₂	SnO ₂	SiO ₂	Fe ₂ O ₃
Featheleve® PTM-7001D	Featheleve® PTM-7001D Fine Gold	4 - 20	7 - 10	6 - 10	○	○	○	○
Featheleve® PTM-7031D	Featheleve® PTM-7031D Fine Sunset Gold	4 - 20	7 - 10	6 - 10	○	○	○	○
Featheleve® PTM-7041D	Featheleve® PTM-7041D Fine Coral	4 - 20	7 - 10	6 - 10	○	○	○	○
Featheleve® PTM-7441D	Featheleve® PTM-7441D Fine Pink	4 - 20	7 - 10	6 - 10	○	○	○	○
Featheleve® PTM-7661D	Featheleve® PTM-7661D Fine Violet	4 - 20	7 - 10	6 - 10	○	○	○	○
Featheleve® PTM-7901D	Featheleve® PTM-7901D Fine Lime Gold	4 - 20	7 - 10	6 - 10	○	○	○	○

Featheleve® PTMB

Metallic Effect Pigments

CQV is excited to introduce the next generation of Featheleve® technology with Featheleve® PTMB color effect pigments.

Featheleve® PTMB-7441D (Purple)

Featheleve® PTMB-7661D (Violet)

Featheleve® PTMB-7991D (Green)

Featheleve® PTMB features darkened, shadow-like colors in shades of purple, violet and green. Developed by precipitating multiple coatings of iron oxides onto platy forms of TiO₂, these latest effect materials stay true to Featheleve® technology featuring substrate-free hollow-core particles, but in a “blackened” color mode.

Featheleve® PTMB pigments bring new formulation options to all manner of color cosmetic makeup, nail polish, BB cremes, foundations, face masks, and personal care applications.

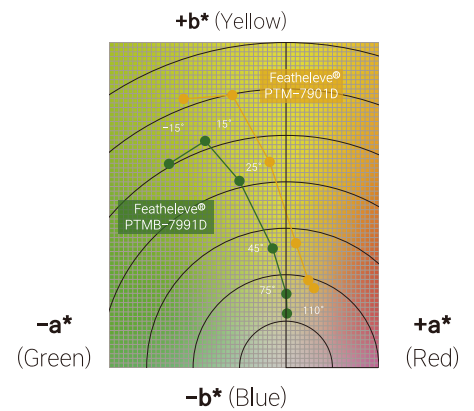
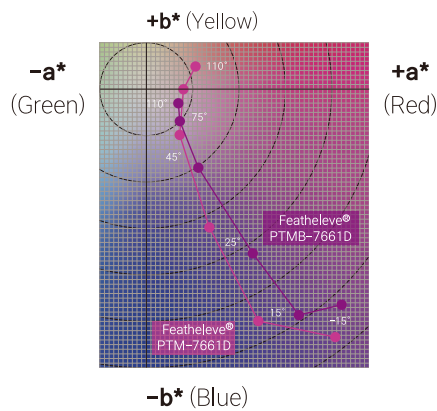
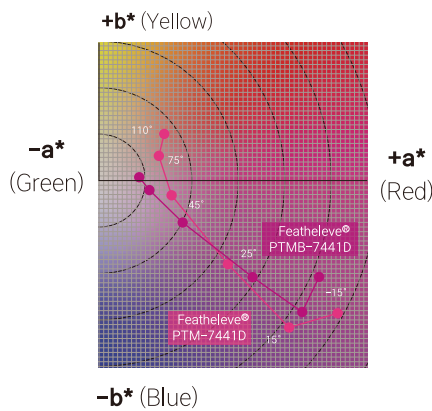
CQV continues to develop and supply innovative new effect pigment technology to the global cosmetics and personal care markets. Contact us, or, your local distributor, for more information on Featheleve® PTMB color effect pigments.

Special Features

- Plate-like TiO₂ coated with iron oxides (Red, Black)
- No separate dispersion process required
- Dark vivid color

Applications

- Basic cosmetics (toner, lotion, cream, etc.)
- UV protection products
- BB cream, foundation
- Nail enamel products
- Various beauty products



Featheleve® PTMB

Metallic Effect Pigments



Featheleve® PTMB

Metallic Effect Pigments Technical Data

Code	Product Name	Particle Size(μm)		pH (10% Sol.)	Composition				
		(D10-D90)	(D50)		TiO ₂	SnO ₂	SiO ₂	Fe ₂ O ₃	Fe ₃ O ₄
Featheleve® PTMB-7441D	Featheleve® PTM-7441D Ebony Purple	4 - 20	7 - 10	6 - 10	○	○	○	○	○
Featheleve® PTMB-7661D	Featheleve® PTM-7661D Ebony Violet	4 - 20	7 - 10	6 - 10	○	○	○	○	○
Featheleve® PTMB-7991D	Featheleve® PTM-7991D Ebony Green	4 - 20	7 - 10	6 - 10	○	○	○	○	○

CQV GLOBAL NETWORK

“World Leading Pigments Material Provider ”



Creation of Quality Value

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