

IMERCARE™

Natural. Mineral. Beautiful.

ImerCare® kaolin range

for toiletries, skincare
and make-up applications

- Sebum and impurity absorption for skincare and haircare
- Mattifying effect for skincare and make-up
- Coverage in liquid and powder make-up
- Opacifying agent in toiletries
- Abrasive agent in oral care



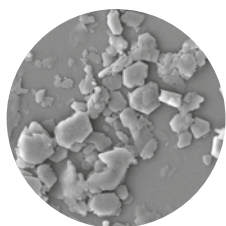
IMERYS



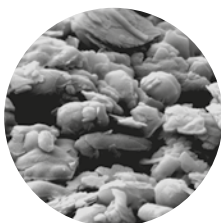
ImerCare® kaolin range: Imerys offers a full range of kaolins specifically designed for formulations where skin purifying effect, coverage and whiteness are desired. Depending on the deposit of origin and the processing technique used, Imerys is capable of strictly controlling the composition, morphology, and particle size distribution of the mineral enabling us to offer an innovative kaolin range with unparalleled performance.

About kaolin:

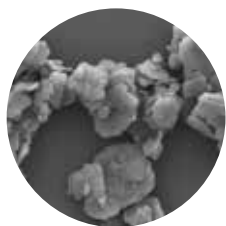
Kaolin is natural, hydrophilic white clay. This natural mineral comes from deposits which are classified as either primary or secondary according to the natural geological process of formation. Kaolins from secondary deposits have different and complementary properties compared to primary kaolins. Depending on the function required, Imerys offers kaolin from both primary and secondary sources.



ImerCare® 04K and 2K



ImerCare® Matte



ImerCare® Opaque



ImerCare® KaoBright

ImerCare® 2K and 04K for sebum and impurities absorption

■ CLAY MASKS

Using clay as a face mask is an age-old beauty treatment which is unlikely to go out of fashion. Clay facial masks are very popular with consumers seeking a natural solution which both absorbs sebum and impurities whilst nourishing the skin with its rich mineral content.

ImerCare® 2K and 04K matches this consumer trend perfectly. Used in clay mask formulations, it provides:

- Efficient sebum and impurity absorption for a detox effect
- Good consistency and a rich, creamy feel
- Homogeneous spread and high whiteness

	ImerCare® 2K	ImerCare® 04K Premium grade
Particle size (d50) (µm)	2.0	0.4
Whiteness (Y)	83	88
Sebum absorption (mL/100g)	60	70
Water absorption (mL/100g)	40	50
Viscosity at 20% water (cP) Brookfield M4 at 100 rpm	200	700
Sedimentation in water at 20% after 90 days (%)	35%	15%



The recommended level of incorporation in clay masks is between **15 and 40%**.

Since kaolin tends to increase viscosity, ImerCare® kaolins should be added at the end of the formulation. The use of an Ultra-Turrax® machine is recommended.

ImerCare® 04K, the premium grade for high quality requirements

Microbiology control without irradiation and high performance are key requirements in the cosmetic market. Imerys has therefore developed ImerCare® 04K, a premium kaolin grade that improves:



Microbiology control via heat treatment



Whiteness



Sebum absorption



Water absorption



■ SPA APPLICATIONS

The benefits of kaolin are not exclusively reserved for face care. This versatile mineral has also been used for millennia in spa treatments.



Body mask



Clay bath



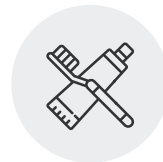
Clay enveloping

■ OTHER APPLICATIONS

The absorption properties of kaolin are also prized in a broad range of applications.



Deodorant
Perspiration absorbent



Toothpaste
Gentle abrasive agent



Shampoo and hair mask
Impurities absorbent



Hair styling wax
Mattifying agent



Face & body cream
Consistency agent



ImerCare® 2K for enhanced sensorial properties and processing in baby powders

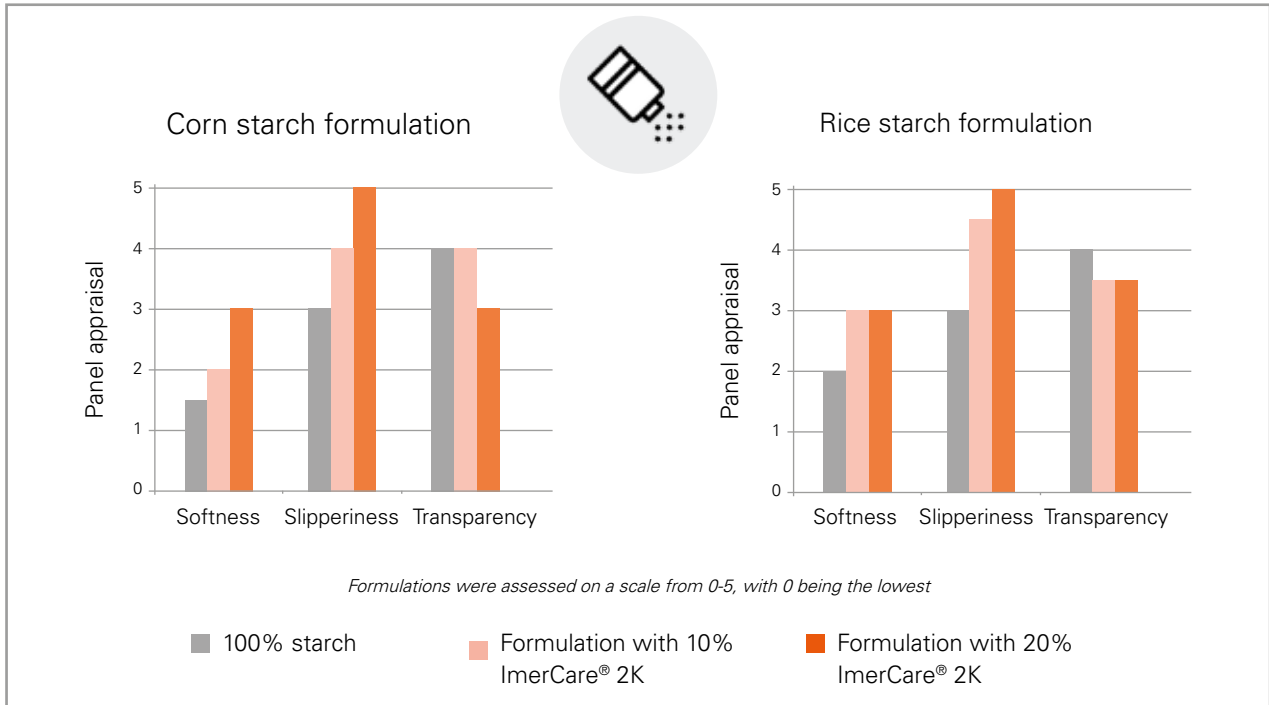
Babies' bottoms are highly sensitive to irritation and nappy rash. As well as regular nappy changes and cleansing, baby powder can be used to absorb excess moisture and prevent the friction that causes chafing.

Most baby powders are based on talc, the softest of all minerals. Other principal ingredients include corn starch and rice starch which are prized for their whiteness. However, the properties, in particular the sensorial properties, of these starch-based powders present certain shortcomings. Starch also demonstrates a tendency to cake, making it more challenging to process and bottle.

Imerys recommends adding up to 20% ImerCare® 2K to improve the flowability, softness, slippery texture and spreadability of these starch-based powders. Adding kaolin also affects the density of the end product allowing manufacturers to fine-tune flow parameters and bottle fullness.

■ FORMULATIONS CONTAINING IMERCARE® 2K PERFORM WELL IN PANEL TESTS

We asked a panel of five experts to assess the sensorial and optical performance of a 100% starch-based formulation and formulations containing up to 20% ImerCare® 2K.



Conclusion

100% starch formulation:

- Lacks softness and homogeneity
- Tends to cake, making processing and filling bottles difficult

Adding ImerCare® 2K:

- Significantly improves softness and spreadability
- Reduces caking
- Provides flexibility in terms of density - allowing process adjustments

ImerCare® 04K for improved sensorial properties in liquid and powder make-up formulations

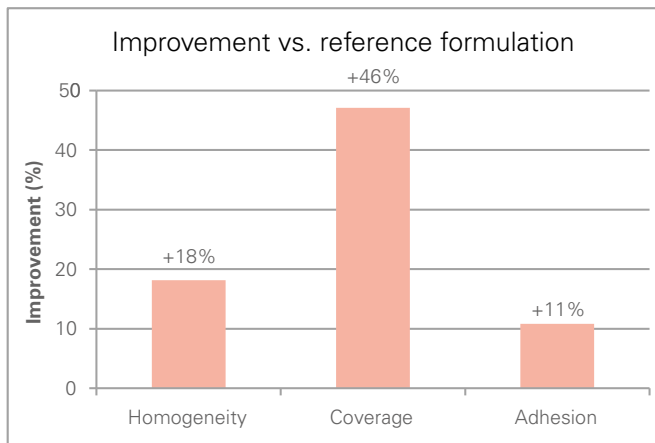
Modern women are looking for all-in-one foundation products that provide radiance, skin protection, coverage and good make-up adhesion. Performance demands are therefore increasingly high, particularly in terms of uniformity, coverage and long-lasting effect.

To meet these requirements, Imerys has developed ImerCare® 04K, a premium solution for improving homogeneity, coverage and adhesion in liquid and powder foundation formulations.

A panel of five experts was asked to compare the sensorial properties of a powder and a liquid foundation containing 20% and 5% respectively of ImerCare® 04K with reference formulations that did not contain kaolin.



POWDER FOUNDATION
containing 20%
ImerCare® 04K



Conclusion

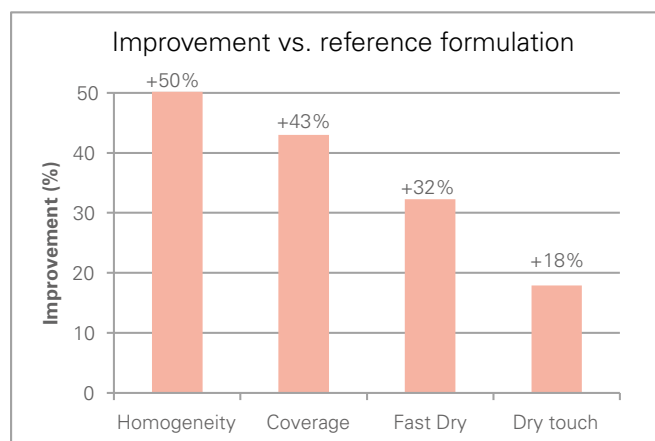
Adding ImerCare® 04K to pressed powder formulations boosts:

- Homogeneity
- Coverage
- Adhesion

Recommended usage:
15 to 25%



LIQUID FOUNDATION
containing 5%
ImerCare® 04K



Conclusion

Adding ImerCare® 04K to liquid foundation formulations boosts:

- Homogeneity
- Coverage
- Drying time
- Dry touch

Recommended usage:
3 to 10%

ImerCare® Matte, the natural mattifying solution for skincare and make-up



In today's world, where having shiny skin can be synonymous with a certain lack of hygiene, consumers are increasingly seeking mattifying products that are both effective and long-lasting. To meet this demand, Imerys has developed 100% natural **ImerCare® Matte** which **provides a superior mattifying effect in skincare and make-up applications**. Compared to conventional kaolin, ImerCare® Matte has been specifically processed to obtain an innovative microporous structure. This structure possesses a high surface area providing excellent sebum absorption and a natural matte skin finish.

ImerCare® Matte is Cosmos approved.

All performance tests and formulation guidelines can be found in the ImerCare® Matte brochure.



ImerCare® Opaque, the natural opacifying agent for shampoos and shower gels



Opacifiers are widely used to give a creamy aspect to shower gels and shampoos. Most current opacifying solutions are based on synthetic ingredients which tend to be pH and ionic sensitive.

With its high opacity and whiteness, **ImerCare® Opaque is a 100% natural Kaolin opacifier which confers a rich, creamy optical effect to beauty care gels**, giving them a luxurious wholesome quality.

Unlike chemical opacifiers, ImerCare® Opaque is neither pH nor ionic sensitive, making it a one-size-fits-all solution for a wide range of gels and shampoos.

All performance tests and formulations guidelines can be found in the ImerCare® Opaque brochure.



ImerCare® KaoBright, the natural alternative to abrasive silica



ImerCare® KaoBright is a 100% natural kaolin specifically designed as an alternative to abrasive silica in standard toothpaste.






Thanks to the unique shape of the particles resulting from a specific process, this grade has a high polishing action for whitening effect and smoothing surface of the enamel.

Using ImerCare® KaoBright has a clear benefit to long term enamel retention and overall oral care health.



Applications & benefits of ImerCare® kaolin range






ImerCare® kaolin range – Applications

		ImerCare® 2K	ImerCare® 04K	ImerCare® Matte	ImerCare® Opaque	ImerCare® KaoBright
 Skincare	Face mask	✓ Whiteness, sebum absorption	 Whiteness, sebum absorption			
	Spa treatments					
	Cream			✓ Mattifying agent		
 Make-up	Liquid foundation		✓ Coverage, fast drying	✓ Mattifying agent		
	Powder		✓ Coverage, homogeneity			
 Toiletries	Shower gel and shampoos				✓ Opacifier	
	Deodorant		✓ Sweat absorption			
	Toothpaste					✓ Abrasive agent
	Baby powder	✓ Improved sensorial properties				
 Haircare	Hair wax		✓ Sebum absorption, matte effect			

ImerCare® kaolin range – Properties

	ImerCare® 2K	ImerCare® 04K	ImerCare® Matte	ImerCare® Opaque	ImerCare® KaoBright
Median particle size – d50 (µm) Sedigraph®	2.0	0.4	1.8	0.6	1.0
Sebum absorption (ml/100g)	60	70	120	110	75
Whiteness	83	88	87	91	94

ImerCare® kaolin range – Microbiological control

	ImerCare® 2K	ImerCare® 2K(HT)	ImerCare® 2K(S)	ImerCare® 04K	ImerCare® Matte	ImerCare® Opaque	ImerCare® KaoBright
Microbiologically controlled	X	✓ Heat treatment	✓ Irradiation	✓ Heat treatment	✓ Heat treatment	✓ Heat treatment	✓ Heat treatment
Cosmos approved	X	 COSMOS APPROVED	X	 COSMOS APPROVED	 COSMOS APPROVED	 COSMOS APPROVED	 COSMOS APPROVED

ABOUT IMERYS

The world leader in mineral-based specialties for industry, Imerys delivers high value-added, functional solutions to a diversified set of industrial sectors, from processing industries to consumer goods.

The Group draws on its knowledge of applications, technological expertise and its material science know-how to deliver solutions based on the beneficiation of its mineral resources, synthetic minerals, and formulations. These contribute essential properties to customers' products and performance, including refractoriness, hardness, conductivity, opacity, durability, purity, lightness, filtration, absorption and repellency.

Imerys is determined to develop responsibly, in particular by fostering the emergence of environmentally friendly products and processes.

OUR EXPERTISE

With over two hundred years' experience in the minerals business, Imerys refines and engineers its minerals through various—often proprietary—processes that influence their concentration, size, shape, structure and surface chemistry to obtain the properties our customers require and to the highest standards of quality, consistency and reliability.

Our Personal Care team has in-depth knowledge of how minerals interact in cosmetic applications and a proven track record for developing new, value-added solutions for customers.

Our applications laboratories are equipped with a full range of analytical and cosmetics-specific equipment, enabling us to provide customers with bespoke formulation services and technical support.

ABOUT IMERCARE®

ImerCare® minerals benefit from all the experience and expertise of Imerys group.

The ImerCare® product range is derived from 100% natural kaolin, perlite, diatomaceous earth and talc grades which have been engineered to provide exactly the right properties in terms of exfoliation, matting, transparency, coverage, rheology absorption, and skin feel.

ImerCare® minerals are ideal for use in skin care, make-up, toiletries, hair care and oral care.

All ImerCare® grades are natural, chemically inert and can be used in bio cosmetics. They are processed so as to provide specific functional benefits in cosmetic formulations.

INTEGRATING SUSTAINABLE DEVELOPMENT INTO ALL WE DO

As the world's leading supplier of mineral-based specialty solutions, we have a duty to extract and transform minerals responsibly and sustainably over the long term to meet society's needs.

Our ambition is simple: we want to unlock the sustainable potential of minerals.

We are already on a journey to achieve our ambition, with clear measurable objectives, through what we call SustainAgility.

- In our business, we are scaling up our efforts to deliver new solutions and opportunities to extend the life cycle of our minerals.
- Within our communities, we are determined to play a positive role, both for local ecosystems and economies over the long-term.
- In the global drive to combat climate change, we are committed to act by reducing carbon emissions in our operations by 36% relative to revenue by 2030.

SustainAgility goes to the heart of who we are and what we are as a business, now and long into the future.



www.imerys.com

