



IMERCARE®
P A R I S

ImerCare® Matte

A new, natural, kaolin-based
solution for skin care
and make-up applications

- Mattifying effect
- Natural, eco-friendly



IMERYS

ImerCare® Matte effectiveness in pressed powders validated by a panel test

Formulation guidelines for pressed powders in make-up applications

"Infinitely matte" pressed powder

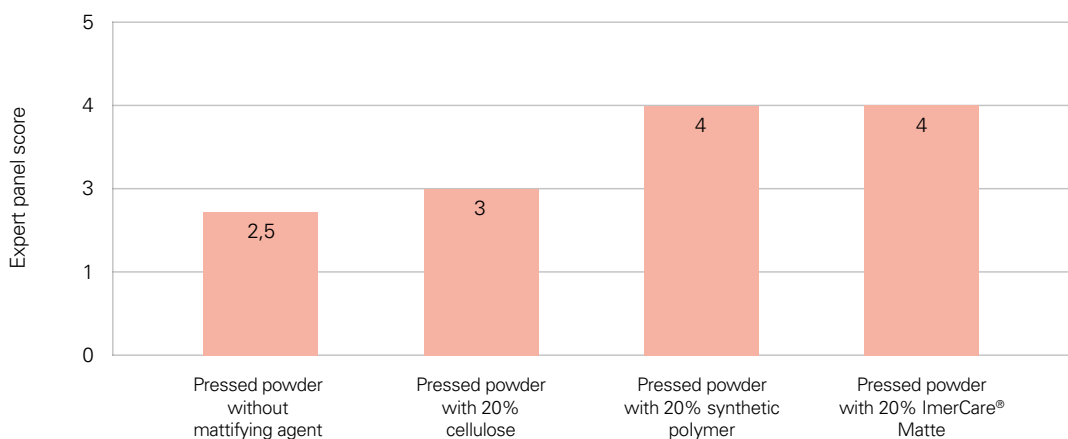
Phase	INCI name	Commercial name	Function	%
A	Talc	ImerCare® Pharma 5T (Imerys)	Compacting and sensory agent	72.6
	Sodium dehydroacetate	-	Preservative	0.2
	Titanium dioxide (and) aluminium hydroxide (and) lauroyl lysine	LL-5 TiO2 CR-50 (Daito Kasei)	Pigment	1.3
	Black iron oxide (and) lauroyl lysine	LL-5 Black BL-100P (Daito Kasei)	Pigment	0.2
	Yellow iron oxide (and) lauroyl lysine	LL-5 Yellow LL-100P (Daito Kasei)	Pigment	0.4
	Red iron oxide (and) lauroyl lysine	LL-5 Red E-516P (Daito Kasei)	Pigment	0.3
B	Coco caprylate/ caprate	DUB 810C (Stearinerie Dubois)	Binder	5.0
C	Kaolin	ImerCare® Matte (Imerys)	Mattifying agent	20.0

Procedure

- Weigh phase A ingredients and mix them using a spatula until homogenised.
- Take a fraction of the mixture and mix it for 30 seconds with the mixer.
- Repeat this action until the mix is fully blended.
- Put the powder blend into a beaker.
- Add phase B drop by drop.
- Homogenise with the spatula.
- Add ImerCare® Matte into the beaker and homogenise.
- Mix the blend for 30 seconds.
- Sift the blend.
- Weigh 12g into each container.
- Press the powder for 20 seconds at 20 bars.

Panel test results

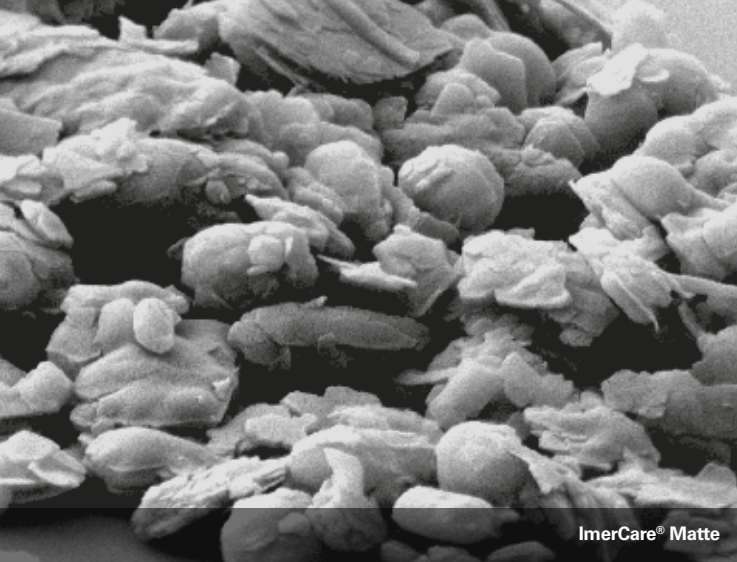
Mattifying effect of a pressed powder formulation



The mattifying performance of a pressed powder containing 20% ImerCare® Matte was compared on a scale of 0 to 5 to two benchmarks containing respectively 20% synthetic polymer and 20% cellulose by five experts from Effervescence Lab laboratory.

Conclusion

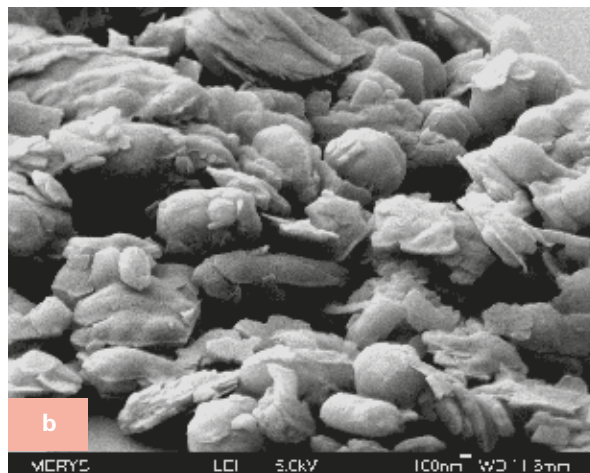
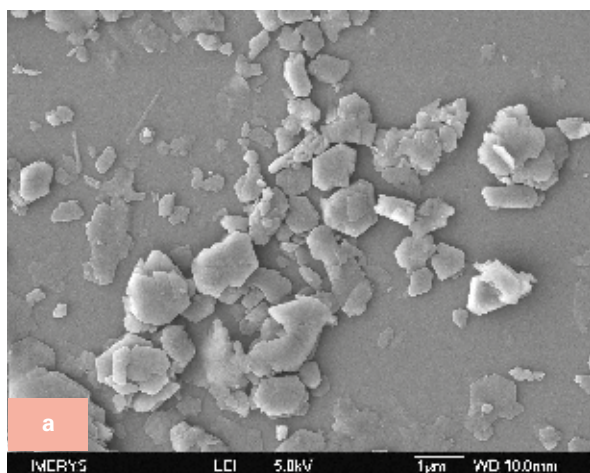
The pressed powder containing ImerCare® Matte demonstrates a high mattifying effect comparable to the benchmarks.



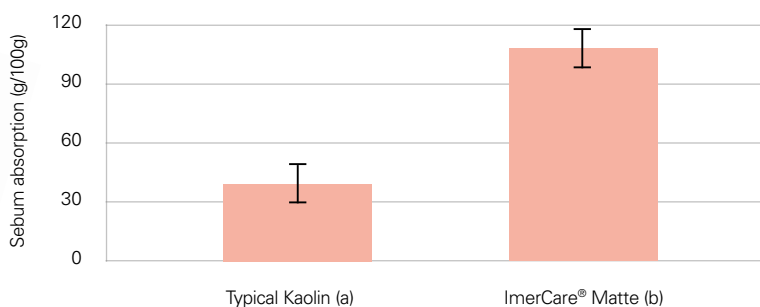
ImerCare® Matte is a naturally white kaolin-based solution that provides a superior mattifying effect in gels and creams, liquid foundations and pressed powders. Due to its unique morphology, ImerCare® Matte absorbs sebum and confers an immediate matte effect to the skin.

ImerCare® Matte for superior mattifying performance

Compared to conventional kaolin (a), ImerCare® Matte (b) has been especially 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 demonstrates superior sebum absorption versus conventional kaolin



The sebum absorption measurements were carried out with synthetic sebum, a blend of triglycerides and fatty acids (details of composition can be provided upon request). Sebum absorption is measured according to standard ISO 787-5:1980.

ImerCare® Matte effectiveness in cream gels validated by a clinical study

The performance of a mattifying gel containing 5% ImerCare® Matte was compared to a benchmark containing 5% synthetic mattifying agent based on a synthetic polymer and a placebo without mattifying agent. The test was conducted by DermScan laboratory on 17 volunteers with mixed to oily skin.

■ Formulation guidelines for cream gels in skin care applications

"Bounce-back" matte cream gel

Phase	INCI name	Commercial name	Function	%	Placebo
A	Aqua	-	Solvent	QSP 100	QSP100
	Chlorphenesin	Elestab® CPN (BASF)	Preservative	0.2	0.2
B	Sodium acrylates copolymer (and) lecithin	Lecigel™ (Lucas Mayer)	Gelling agent	1.8	1.8
C	Phytic acid (and) aqua	Dermofeel® PA (Evonik)	Chelating agent	0.1	0.1
	Coco caprylate/ caprate	DUB 810 C (Stearinerie Dubois)	Emollient	3.0	3.0
	Glycerin	-	Humectant	1.0	1.0
	Tocopherol	Covi-Ox® T90 EU C (BASF)	Antioxidant	0.1	0.1
D	Glyceryl caprylate	Dermosoft® GMCY (Evonik)	Wetting agent	0.5	0.5
E	Kaolin	ImerCare® Matte (Imerys)	Mattifying agent	5.0	0

Procedure

- Weigh phase A ingredients and heat Elastab CPN until it melts.
- Sprinkle phase B into phase A and stir to obtain a consistent gel.
- Add phase C ingredients one after another.
- Heat phase D gently until it melts before adding it to the mixture.
- Finally, add ImerCare® Matte.

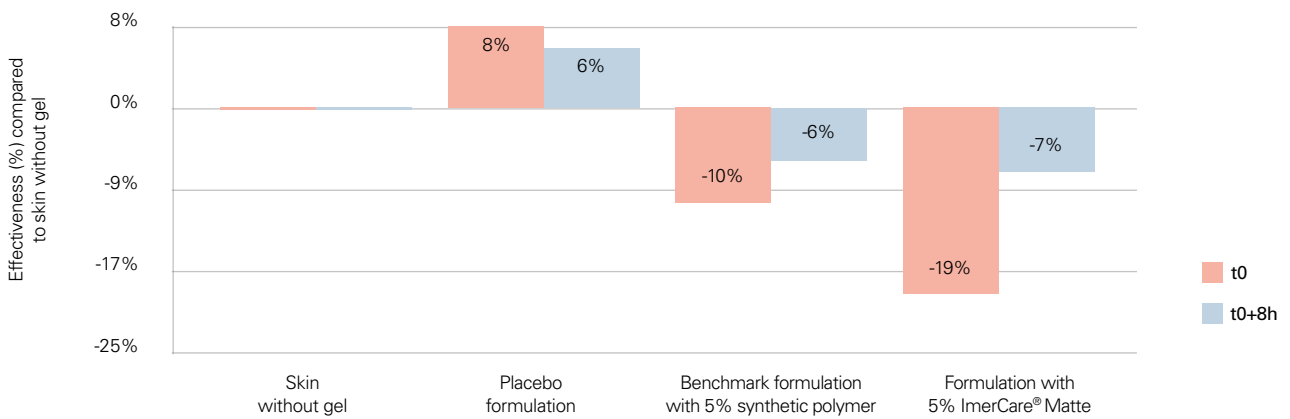
Characteristics

- Appearance: white
- pH: 6.5
- Viscosity: 433 100 cP (Brookfield, Spindle 96, Helipath 3, 3 rpm, 20°C)
- Stability: 3 months at 4°C, 20°C and 50°C

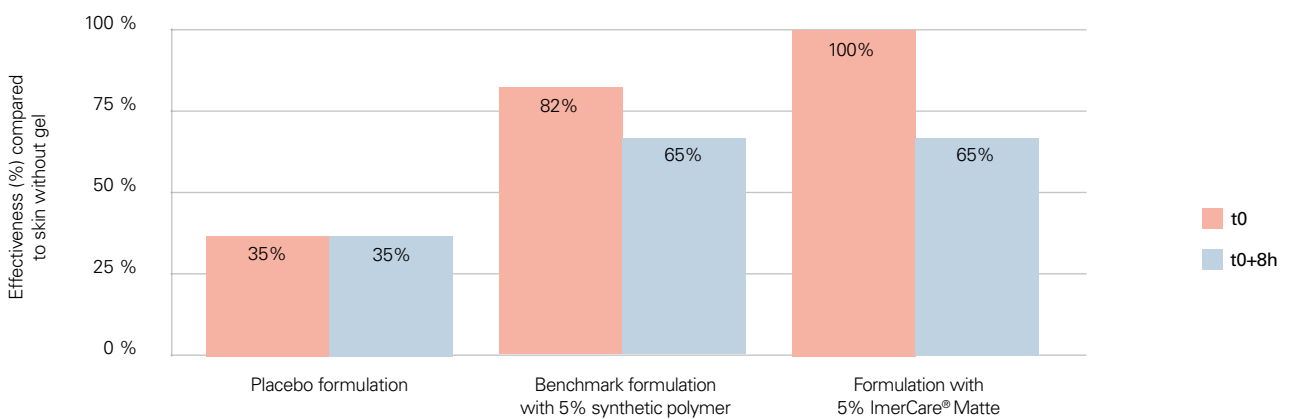


Clinical study results

Variation of skin gloss compared to reference (skin without mattifying gel)



Volunteers whose skin exhibits a mattifying effect



The three mattifying gels were applied to the 17 volunteers' hemi-foreheads according to a standardised application method ($2 \mu\text{g}/\text{cm}^2$) at the Derscan laboratory. The mattifying effect at t0 and t0+8h was evaluated using cutaneous gloss measurements with the Glossometer® GL 200.

Conclusion

The mattifying gel containing ImerCare® Matte demonstrates:

- a visible effect on 100% of the volunteers
- a superior immediate mattifying effect compared to the benchmark
- an equivalent mattifying effect after 8 hours compared to the benchmark



About Imerys

Imerys is the world leader in mineral-based specialty solutions for industry. We transform a unique range of minerals to deliver functional solutions that are essential to customers' products and manufacturing processes. With 300 scientists, eight research and technology centers, 21 market-focused regional laboratories and close ties with renowned research institutes, we lead the way in engineering minerals for industry.

About Imerys Performance Additives

Performance Additives is a division of Imerys. With over a hundred years' experience in the minerals business, we refine and engineer our 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.



MAKING A POSITIVE AND SUSTAINABLE DIFFERENCE

About ImerCare®

ImerCare® minerals benefit from the experience and expertise of several Imerys divisions.

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



We believe that running a successful business whilst promoting environmental stewardship and corporate social responsibility go hand in hand. It is essential that future generations' needs are not compromised by our actions today. As such, we are committed to implementing the following principles:

Social

- **Safety and Health:** we promote the health and safety of our employees, contractors, customers, neighbours and consumers based on the three pillars of the Imerys Safety System: compliance, continuous improvement and communication.
- **Human Resources:** we develop our employees' skills and talents, promote workplace diversity and maintain good industrial relations by fostering an environment of mutual respect.
- **Communities:** we seek to build positive relationships with our neighbours and to make a lasting contribution to their social and economic development.
- **Human Rights:** we respect fundamental human rights set out in core international conventions and the Universal Declaration of Human Rights, taking specific actions to avoid child labour and forced labour.

Environment

- **Environmental Protection:** we work to minimise our environmental footprint by using raw materials and natural resources efficiently, preventing pollution, restoring the land and promoting biodiversity at our mining sites.
- **Green Innovation:** we factor environmental benefits into the research and development of our products, processes and services to reduce our environmental footprint throughout the product life cycle.

Product Stewardship

- We are committed to ensuring that our products are safe for people and the environment, employing best available technology and best-in-class procedures to ensure that our standards and practices meet or exceed legal requirements.

Corporate Governance

- We implement best corporate governance practices, conducting our business in an accountable and transparent manner and relying on external auditing and reporting to guarantee impartiality.



More information about our sustainable development policies and practices can be found on:

www.imerystal.com

Properties of ImerCare® Matte

	INCI name	Size (d50) μm	Whiteness (Y) ISO R 457	Oil absorption (g/100g) ISO 787-5	Key function in application
ImerCare® Matte	Kaolin	1.8	87	74	Mattifying agent

Compliance

All Imerys cosmetic products are natural, pure and chemically inert. These attributes enable them to be used in cosmetic products that comply with European cosmetic directive (EC) n°1223/2009.

Cosmos

ImerCare® Matte complies with industry microbiological standards without resorting to irradiation. It is not treated with chemicals during processing. It is Cosmos approved. This accreditation underscores the naturalness of the minerals selected and produced by Imerys for the cosmetics industry.



**COSMOS
APPROVED**