

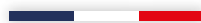


IMERCARE®

Natural. Mineral. Beautiful.

ImerCare® 6M

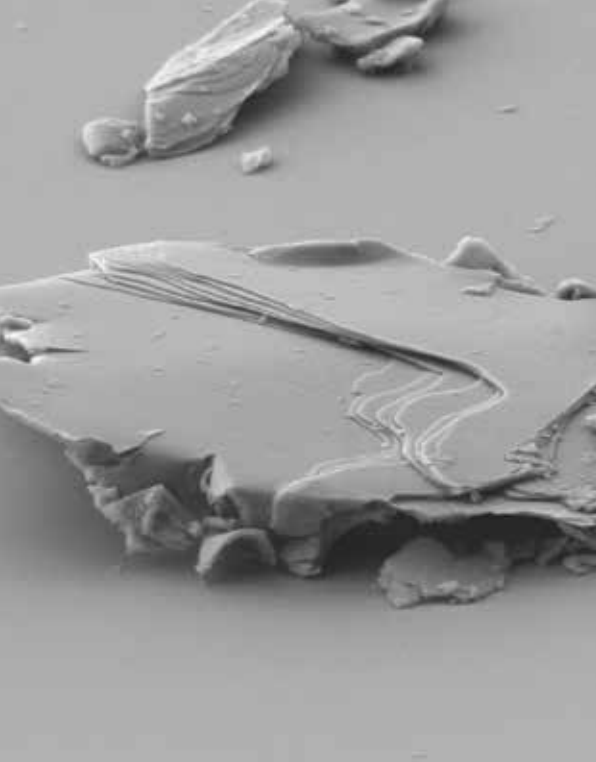
A new French mica
for powder make-up



- Natural, Cosmos-approved
- Highly cohesive in pressed powder
- Matte and luminous



IMERYS



Mica is a naturally occurring, highly lamellar mineral. Micas are unique among platy minerals due to the transparent and luminous effect they impart. These optical effects are widely used in the cosmetics industry and are particularly in demand in make-up applications.

ImerCare® 6M is a mica-based product that has been specifically engineered to optimize particle size and lamellarity, making it an ideal mineral base for pressed powders.

Mica and recent consumer trends

■ POPULARITY OF MINERAL MAKE-UP PRODUCTS

Mineral make-up refers to a category of products made with a high crushed mineral content in their formulation. This trend is primarily driven by consumer demand for:

- simpler formulations with fewer ingredients
- more natural and hypoallergenic ingredients
- a natural look and long-lasting wear

Among the minerals used in mineral make-up, mica, talc, perlite and kaolin are particularly prized both by formulators and consumers.

■ THE GROWING DEMAND FOR COHESIVE MICA

Used in make-up applications, natural mica has unique optical and physical properties which make it ideal for powder foundations, eyeshadows and blushes. However, its incorporation rate is generally limited due to the lack of cohesion it can produce in pressed powders. One of the key challenges facing formulators is therefore how to increase the content of natural mica in the powder without changing the end properties of the product.

Imercare® 6M for unmatched cohesiveness in pressed powders

Imerys has risen to the challenge by designing a 100% natural mica which is highly cohesive in pressed powders whilst providing a transparent and luminous finish. Choosing ImerCare® 6M for powder make-up formulations presents a multitude of key benefits.

CHARACTERISTICS:

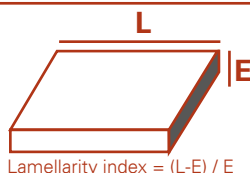
- A unique cosmetic mica grade sourced in France
- Natural according to ISO 16128-2:2017 Standard
- Sustainable supply chain
- Meets demand for natural, clean beauty products
- Meets trend for make-up with high mineral content
- CSAR registered

TECHNICAL BENEFITS:

- Can be incorporated at a high percentage
- Highly cohesive compared to a standard mica
- Good pick-up and sensorial properties
- High whiteness and transparency
- Good compromise between matte finish and luminosity



ImerCare® 6M is twice more cohesive than a standard mica

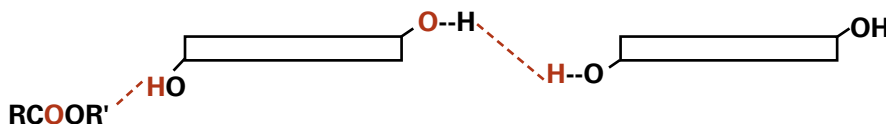


Mica lamellas' have hydroxyl groups (OH) at the ends.

During compaction there is a creation of bonds between hydrogen atoms from binders (esters: RCOOR') or other micas.

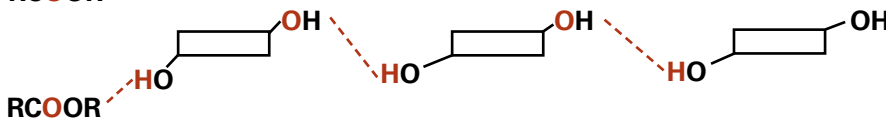
They are called **hydrogen bonds**

Standard micas
Lamellarity index: **3**



Long lammelas
High lamemmarity index

ImerCare® 6M
Lamellarity index: **1.6**



Short lammelas
Low lamemmarity index

- The lower the index, the more hydrogen bond there are.
- The more hydrogen bond there are, the more cohesive the mica is.

Performance of ImerCare® 6M demonstrated by a panel of experts

A panel of experts compared the performance in terms of mechanical, optical and sensorial properties of a pressed powder containing 76% ImerCare® 6M versus several benchmarks containing standard mica.



PHASE	INCI Name	Commercial Name	Function	A % wt	B % wt
A	Mica	ImerCare® 6M	Mineral base	75.8	-
	Mica	Benchmark	Mineral base	-	75.8
	Zinc Stearate	Zinc Stearate (Alfa Aesar)	Compacting agent	10.0	10.0
	Sodium Dehydroacetate	Geogard 111S (Lonza)	Preservative	0.2	0.2
B	TiO ₂ , Aluminium Hydroxide, Yellow Iron Oxide, Red Iron Oxide, Black Iron Oxide, Lauroyl Lysine	FHS range (Daito Kasei)	Pigment phase	5.0	5.0
C	Isocetyl Stearoyl Stearate	DUB SSIC (Stéarinerie Dubois)	Binder	9.0	9.0

Procedure

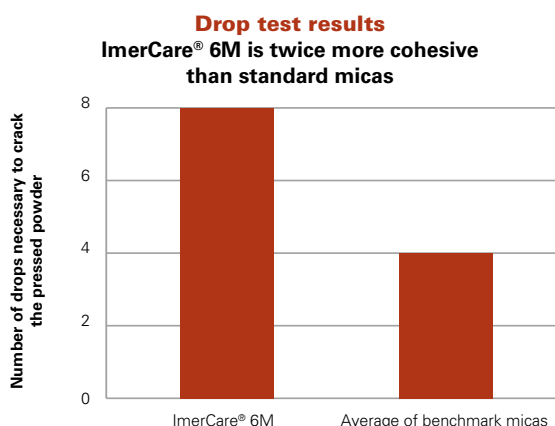
- Weigh phase A.
- Pre-grind pigments of phase B with a blender.
- Add phase B to phase A and mix them with a SpeedMixer until homogenized.
- Add phase C drop by drop and blend the mixture three times in the SpeedMixer, until homogenized.
- Weigh around 11g of the mixture in a container.
- Press the powder for 5 seconds at 4 bars.



■ HIGH COHESIVENESS PROVEN BY DROP TEST

Pressed powders need to stand up to the modern woman's active lifestyle. To stop the powder breaking in the woman's handbag and to extend its lifespan, **powder cohesiveness is crucial**.

The drop test highlighted the high cohesiveness of the formulation containing PATENTED ImerCare® 6M compared to seven market benchmarks. ImerCare® 6M is twice more cohesive than a powder formulation containing standard mica.

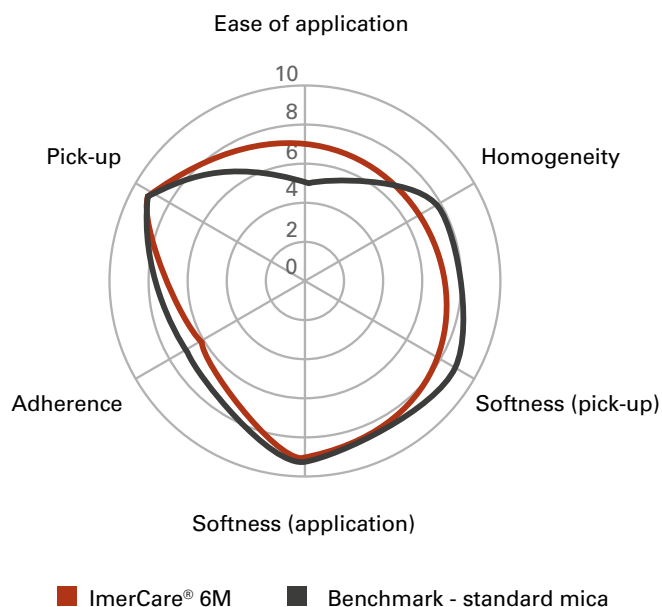


■ GOOD SENSORIAL PROPERTIES ARE PRESERVED

Improving mechanical properties such as cohesiveness could have a negative impact on the sensorial properties of the powder such as pick-up and softness. This is not the case with ImerCare® 6M **which confers both high cohesiveness and good sensorial properties**.

A panel of experts compared six sensorial aspects of the pressed powder containing ImerCare® 6M on a scale of 0 to 10 versus the market benchmark.

Results demonstrated a non-significant difference between ImerCare® 6M and the benchmark, proving ImerCare® 6M maintains good sensorial properties while improving the cohesiveness of the pressed powder.



ImerCare® 6M has a transparent material life cycle

Imerys is not only committed to managing the environmental and social impact of its operations, but to finding innovative solutions that promote a low-carbon and circular economy, and which support customers in their own transition.

■ PRODUCT LIFE CYCLE ASSESSMENT TO MEET CUSTOMER REQUIREMENTS

To this effect, Imerys has conducted numerous LCA analyses of products in the Group portfolio to determine their environmental footprint. These studies serve a dual purpose: they provide customers with fully comprehensive, transparent information about a product and give more visibility on the impact of specific products or facilities—a prerequisite to any eco-design approach. The results of the Life Cycle Assessment of ImerCare® 6M, calculated according to ISO 14040 and 14044 standards, are available upon request.

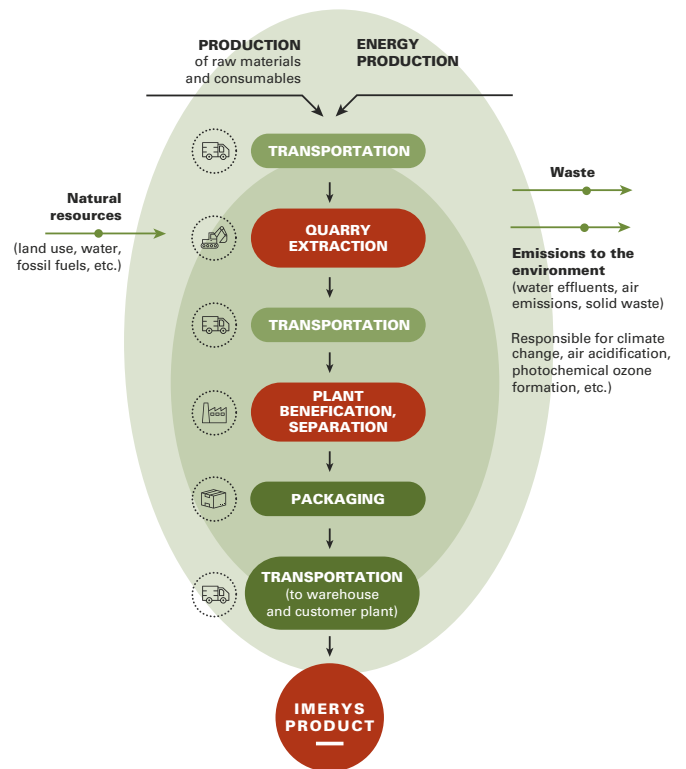
■ IMERYS SITE IN PLOEMEUR, FRANCE: BEST IN CLASS

Imerys is committed to acting as a responsible environmental steward by assessing environmental risks and continually improving control measures to reduce its environmental impact and to maximize the efficient use of natural resources, while conserving and creating biodiversity value.

Our Imerys site in Brittany in northwest France is a shining example of Imerys's Commitment to Environmental Protection. The Ploemeur site has been firmly engaged in various actions and measures for several years, and is considered exemplary by UNICEM (National Union of Quarries and Building Materials Industries) for its progress in Corporate Social Responsibility.

■ PIONEER SOLUTION

Our recently introduced **Pioneer certificate** denotes a product that provides **the highest social and environmental contribution to the downstream value chain**, while demonstrating a **low environmental impact** in its production phase compared to its economic value.



- Since 2004: ISO 14001 certification
- Since 2016: adherence to the UNICEM charter
- Monitoring of biodiversity by independent experts and local and regional associations
- Rehabilitation of quarries in partnership with local, institutional and associative actors
- Adherence as a pilot site to the UNICEM Social and Environmental Responsibility (CSR) charter.

The recent in-depth study conducted according to **Bilan Carbone® methodology** is an example of an initiative launched in 2019 to gain better understanding of key CO₂ emissions sources from mining operations, manufacturing and supply chain.



Imerys' Ploemeur site in France.

LA FRENCH FAB: FRANCE IS AT THE CUTTING-EDGE OF INDUSTRY



La French Fab embodies companies and industrial sites located in France who recognize themselves in the desire to develop French industry, adhere to the concepts and values of La French Fab and fly their colors. France is well known for its industrial expertise and ingenuity as well for its highly skilled and ambitious workforce.



About Imerys

The world leader in mineral-based specialty solutions 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 beneficiation of its mineral resources, synthetic minerals and formulations. These contribute essential properties to customers' products and performance. 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



At Imerys, we respect the world in which we operate. We are committed to our role in society, to meeting our obligations to the countries and communities in which we do business, as well as to acting as responsible environmental stewards.

Our Corporate Social Responsibility policy is built upon three mainstays:

Empowering our people

- **Ensuring that health and safety come first** by developing and continually improving our health and safety culture and systems so as to achieve an injury-free workplace.
- **Developing our human capital** by respecting internationally recognized human rights and labor practices as set out in our Code of Business Conduct and Ethics; investing in the talent and skills of our employees; engaging in constructive social dialogue, and fostering a culture of workplace diversity and inclusion based on mutual respect.

Caring for our planet

- **Acting as responsible environmental stewards** by assessing environmental risks and continually improving control measures to reduce adverse environmental impacts; maximizing the efficient use of natural resources, and preserving biodiversity.

- **Reducing the impact of climate change** through the implementation of a long-term climate change strategy in line with the COP21 2°C trajectory as well as developing innovative solutions at the service of a low-carbon economy.

Building for the future

- **Ensuring exemplary Business Conduct** by maintaining the highest standard of corporate governance; respecting and implementing fair operating practices and ensuring a responsible supply-chain with all our partners; and engaging with local communities to create shared value in particular through education and skills development.
- **Ensuring that our products are safe** for people and the environment and developing sustainable solutions that make positive contributions to society from both life cycle assessment as well as long term sustainability perspectives.



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

www.imerys.com

Compliance

All Imerys cosmetic products are natural 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® 6M 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**



www.imerys.com

