

Diatomaceous earth is composed of microporous siliceous fossilized skeletal remains of aquatic algae, known as diatoms. Due to its microporous structure, diatomaceous earth offers high absorbency power for personal care products such as deodorants and antiperspirants.

Using proprietary technology, Imerys has engineered the most water-and oil-absorbent diatomaceous earth product available on the market today, ImerCare® 400D.

#### Water-and oil-absorption of different minerals

	Oil absorption (ml/100g)	Water absorption (ml/100g)
Typical diatomaceous earth	90 – 150	80 – 140
ImerCare® 400D	220	230
Perlite	180 – 270	170 – 250
Kaolin	40 – 50	40 – 60
Talc	30 – 50	30 – 50

Each diatomaceous earth deposit has its own morphology.

#### **■ PROMOTIONAL CLAIMS**

- INCI: Diatomaceous earth
- CSAR registered
- Sustainable solution
- Natural according to ISO 16128-2:2017 standard
- Meets demands for:
  - Natural and clean beauty products
  - Deodorant benefits for all galenic formulations





#### ImerCare® 400D controls body odour

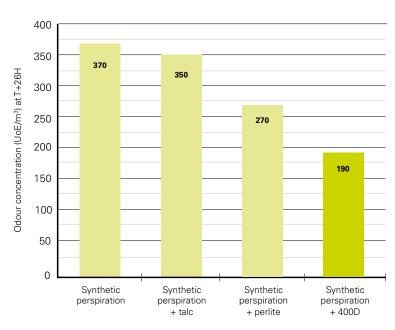
To assess the effectiveness of ImerCare® 400D, the mineral's capacity to absorb volatile synthetic perspiration molecules was tested by an independent laboratory (Odournet).

Different minerals were mixed individually with synthetic perspiration and then placed in an airtight Nalophan® bag. Perspiration persistence and intensity were then evaluated at T=2H and T+26H by a panel of six experts, in compliance with EN 13725.

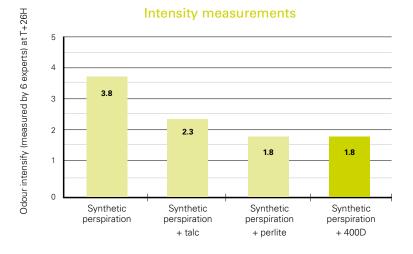
# 2g ImerCare® 400D and 3.4ml synthetic perspiration left for 24H at 37°C

#### Results

#### Olfactometric analysis



The graph opposite quantifies the odour level of a product in terms of "odour concentration" which refers to the persistence of an odour and its resistance to dilution. The higher the odour concentration value, the more difficult it is to dissipate the smell.



This graph measures a product's odour intensity on a scale of 0-5 (0 = imperceptible, 5 = very high) compared to a reference scale of n-butanol.

Of the three minerals tested (talc, perlite and diatomaceous earth), ImerCare® 400D demonstrated the highest capacity to absorb volatile perspiration odour molecules.

### ImerCare® 400D effectiveness validated by consumers

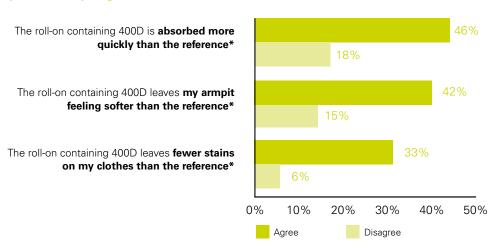
The performance of a roll-on deodorant containing 2% ImerCare® 400D was compared to a reference roll-on without any mineral content. The test was conducted with 33 panelists by an external laboratory (proDERM).

The two different roll-on test deodorants were applied by the panelists at home, once a day for a period of seven days. The panelists then filled out a questionnaire assessing the performance of the two products.

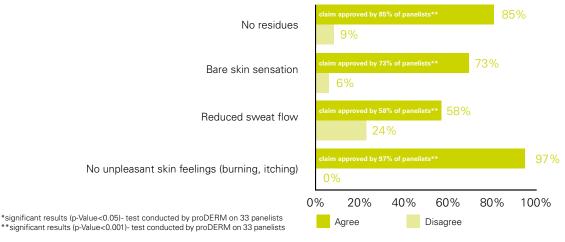
#### Results

100% of the panelists perceive a difference between the roll-on containing ImerCare® 400D and the roll-on without any mineral content.

#### Reponses to questions comparing the two roll-on formulations



#### Responses to questions concerning roll-on formulation containing ImerCare® 400D only



The full panel study integrating "no opinion" responses is available upon request.

Based on the odour and user tests described above, the roll-on deodorant containing ImerCare® 400D:

- Demonstrates high perspiration absorbency for body odour control
- Dries quickly, imparting a bare skin sensation
- Leaves skin feeling soft

The recommended incorporation rate of ImerCare® 400D in the formulation is 1 to 5%.





# **About Imerys**

The world leader in mineral-based specialty solutions for industry, Imerys delivers high value-added, functional solutions to 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

