



IMERYS

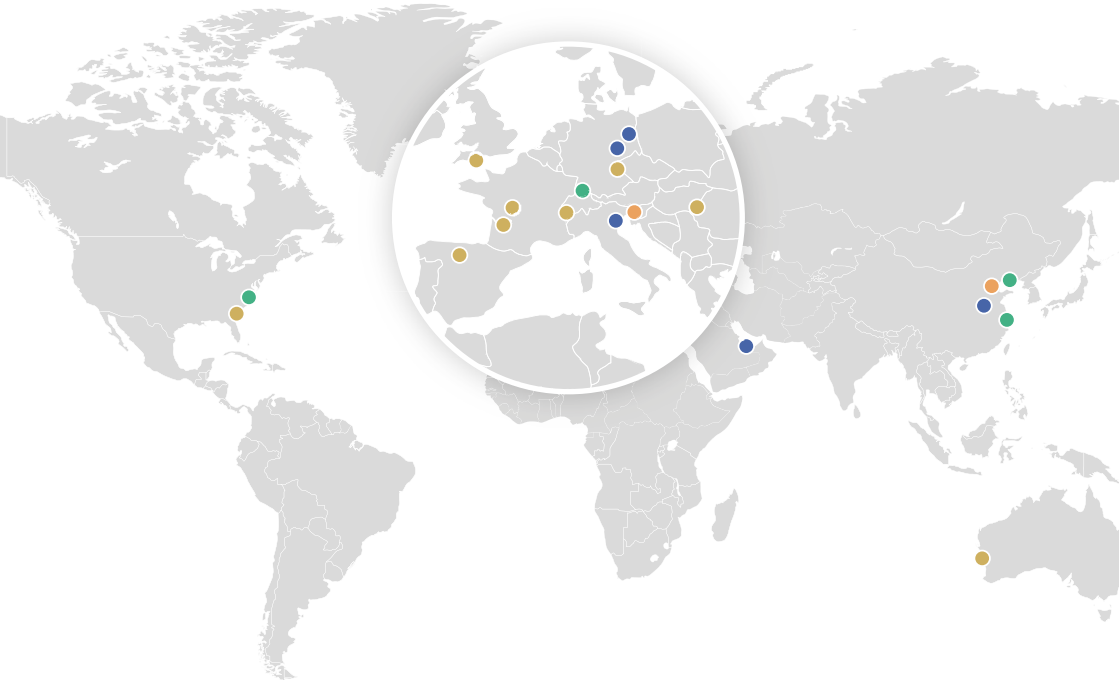
MATERIAL SOLUTIONS FOR

# ADVANCED CERAMICS

**ENGINEERING  
THE FUTURE  
WITH SUSTAINABLE  
SOLUTIONS.**

# OUR MAIN LOCATIONS FOR ADVANCED CERAMICS & SPECIALTIES

Globally present and familiar with regional specifics



## ● ALUMINA

- Zhengzhou (CN)
- Villach (AUT)
- Laufenburg (GER)
- Zschornowitz (GER)
- Bahrain (BH)
- Teutschenthal (GER)

## ● SILICA AND ZIRCONIA

- Greeneville (US)
- Murg (GER)
- Yingkou and Zhejiang (CN)

## ● OTHER MINERAL SOLUTIONS

- Hódmezővásárhely (HUN)
- Bodio (CH)
- Aix sur Vienne (FRA)
- Neustadt/Coburg (GER)
- Three Springs (AUS)
- Par Moor (UK)
- Andersonville (USA)
- Clérac (FRA)

## ● RESEARCH & DEVELOPMENT

- Villach (AUT)
- Tianjin (CN)

## OUR MISSION

### Bringing innovative solutions to Advanced Ceramics evolving trends and challenges.

Imerys tackles global trends through its engineered Advanced Ceramics & Specialties products based on Zirconia, Alumina, Silica and other minerals.

This will become even more important in the future and hence, we help our customers to create joint value by utilising our material processing knowledge & extraordinary market coverage... **We are here to develop solutions and provide asset-flexibility across all regions.**

Sustainable development is essential to the Group's long-term strategy to support growth and meet the expectations of our stakeholders by promoting social responsibility, environmental stewardship, corporate governance and business ethics.



## OUR EXPERTISE

**Our expertise lies in material processing and tailoring solutions adapted to our partners' needs.** Thinking into most suitable purities, particle and crystal sizes as well as particle shapes (e.g. Tecosphere) and surface areas are our daily business. **We put it in perspective to our assets across the globe to achieve the perfect solutions for a sustainable business relationship.**

Our Science & Technology activities in Advanced Ceramics & Specialties are supported primarily by the Imerys Technology Centres (ITC) based in Villach (Austria), and Tianjin (China). Our activities range from processing, testing and analysing on a variety of topics such as arc furnace technology, chemical processes around our Sol-Gel products for example, calcination, sintering, milling and classifying either ceramic processing or spray drying.



# OUR MARKETS AND APPLICATIONS

We cover markets such as industry, mobility, energy, electronics with a varied offer - covering alumina, zirconium, silica products and other minerals...

Our expertise lies within material processing and application knowledge.

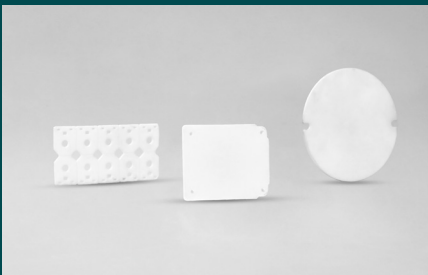
**1. Performance Tools:** Structural components such as wire-drawing rings, bearings, seal rings etc. as machine components or automotive.

**2. Sensors & Energy Converters:** Sensors (oxygen, nitrogen, hydrogen), solid oxide cells, piezo components, capacitors or batteries.

**3. Membranes & Foam Filters:** Metals by ceramic foam filters, water or gasses by ceramic membranes, catalysts & diesel particle filters.

**4. Thermal & Electrical Insulation:** High voltage components, epoxy moulding compounds, ceramic micro-circuits, spark plugs etc.

**5. Thermal Spray Coatings:** Thermal and environmental barrier coatings in gas turbine components or as insulation barriers for industrial components.



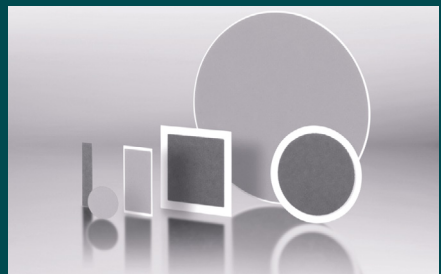
Ceramic micro-circuit




Ceramic membrane



Structural ceramic MgSZ components



Fuel cells



The requirements in these applications are generally vast & specific at the same time. **In order to serve you in the best possible way, we focus our efforts on understanding your needs and provide our knowledge and expertise on materials, minerals and diverse processing methods.**

**Talk to us so we can notably support on you on topics such as:**

- improving mechanical strengths or thermal shock resistance of MgSZ
- increasing packing densities or filler load of SiO<sub>2</sub>s and Al<sub>2</sub>O<sub>3</sub>s,
- better flowability for increased efficiencies of diverse materials.

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## **PRODUCT & APPLICATION OVERVIEW**

**We are one of the very few companies offering a wide range of ceramic materials.**

Behind our **ALODUR** or **TECO-SIL** and **TECO-SPHERE brands** you find fused Alumina and Silica products. In addition we offer fused & chemical Zirconia, under the **ZIONIC brand**, as well as calcined Alumina. All of them include powders:

- **on sub-micron to micron scale**
- **in ready-to-press and ready-to-spray form**
- **angular, blocky, hollow-spherical or spherical shape**

In addition we offer Zirconium chemicals, natural minerals, synthetic graphite and finished kiln furniture to provide comprehensive solutions and become **your Advanced Ceramics' one-stop-shop for future developments.**

# OUR MATERIALS

Our materials are supplied as powder, grains, ready-to-press, ready-to-spray, salt or natural as well as a finished kiln furniture that makes us, as Imerys, **a one-stop-shop developing customised solutions.**

	Performance Tools*	Sensors & Energy Converters*	Membranes & Foam Filters*	Thermal & Electrical Insulation*	Thermal Spray Coatings*
fused YSZ	✓	✓	✓	✓	✓
fused MgSZ	✓	✓	✓		
fused CaSZ	✓		✓		✓
fused ZrO2	✓	✓	✓	✓	✓
chem. ZrO2	✓	✓	✓	✓	✓
ZOC			✓		
ZBC			✓		
calc. Al2O3	✓	✓	✓	✓	✓
fused Al2O3	✓	✓	✓	✓	✓
tab. Al2O3	✓		✓	✓	
fused SiO2	✓		✓	✓	
graphite		✓	✓	✓	
talc	✓		✓		
steatite	✓				
kaolin	✓		✓		
cordierite	✓		✓		
other specialty materials	✓			✓	✓

\* ...kiln furniture can be offered as well



For further information on application specific products and data sheets,  
please contact:

A large white rectangular box intended for contact information.

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