



# **ALUMINIUM INDUSTRY**

Refractory Concept Solutions

# CALDERYS PERFORMANCE YOU CAN TRUST

- For all industries with extreme temperatures and working conditions, Caldersys is there for you. Combining a global network with local expertise, we offer customised solutions wherever you are: from monolithic refractory to bricks and precast shapes to a full range of engineering and installation services.

## KEY POINTS

Over 100 years of refractory experience

Over 2 300 employees across 33 countries

19 plants in 16 countries totaling 600 000 tons capacity

Annual revenue of over € 500 million

1 Global Technology Centre and 15 Customisation Labs

150 major projects implemented every year

Wholly-owned subsidiary of Imerys Group



# OUR VALUE TO THE ALUMINIUM INDUSTRY

▶ **CALDERYS** is the world leader in monolithic refractory solutions for the aluminium industry. We are serving over 1500 customers in over 70 countries on 5 continents: from primary & secondary producers to casting foundries.

With a dedicated refractory range specially formulated for aluminium contact, Calderys provides world-class solutions to the top OEMs and largest end users in the field.

The ALKON® brand is known worldwide as the gold standard for refractory specific to the aluminium industry. These products are created specifically to defend against major impacts in your furnaces and other equipment in contact with liquid aluminium, particularly corundum formation and mechanical abuse.

## References



Calderys is a reliable choice for all your refractory needs. Ask us about our references around the world in:

- ▶ Primary Aluminium (from potcells to tank furnaces)
- ▶ Secondary Aluminium (including rotary kilns, melting and holding furnaces)
- ▶ Aluminium Foundry (from twin chamber furnaces to transfer ladles)



# OUR SERVICES

## Project Management

Calderys offers global **full package refractory projects**: From the initial design, to material selection and supply, to supervision, installation and dry-out on-site. Calderys is a valued supplier of turnkey projects to major aluminium OEMs – ask us for our list of project references.



## Refractory Solution Expertise

Calderys experts ask the right questions to select the best refractory lining design and materials for you, based on decades of experience in the field. The solutions we propose are adapted to your specific equipment and process conditions, taking into account your need to **avoid the loss of production time**.



## Installation Including Machines

To ensure optimal performance for your refractory, Calderys provides full installation services through our certified installation teams around the world (Calderys & partners), including safety officers and supervisors.

Calderys can also offer the machines you need for your next installation (i.e. gunning, shotcrete, mixing), to be delivered to your site.



## Maintenance

So that our customers can focus on their core processes, Calderys offers regular and predictive refractory maintenance as well as rapid round-the-clock response to emergencies.



## Safety

Because safety is our priority, to ensure safe execution, supply, and installation, Calderys can provide you with all required documents and personal safety equipment to execute a project in the safest possible way.



# REFRACTORY SOLUTIONS

## For Primary Aluminium

- Electrolysis: Range of DVM, bricks & mortar, and sealing monolithics for potcells approved by several technology providers
- Anode Baking Furnace: Precast top blocks, insulating monolithics, and mortar/sealing patch
- Rodding shop ferrous foundry: full set of refractory products
- Transfer ladles: Popular self-flowing monolithics like **ALKON® FLOW LB 75** for extended lifetime and easy cleaning
- Casthouse holding furnaces: Best sellers such as **ALKON® CAST LB 85** in bath wear lining and complete solutions for furnaces up to 130t capacity





## For Secondary Aluminium

- Melting furnaces: depending on your furnace design (tank, top charge, sidewell, CIF, etc.) a full range of monolithic or brick solutions can be offered
- Solutions will be zoned to fit the furnace process conditions: chamber temperature peaks, alloys processed, mechanical abuse from the charge and skimming, usage of salts / fluxes
- Solutions will focus on minimising production downtime to minimise your cost of ownership by combining quick installing / drying products, precast shapes, and/or quick installation methods
- Solid results: we can reach metal to metal duration of a couple of hours for small repairs, a couple of days for larger repairs, and 2 weeks for a complete large furnace relining
- ALKON® monolithic refractories enable high performance even in the most extreme conditions we have seen around the world

## For Aluminium Foundry

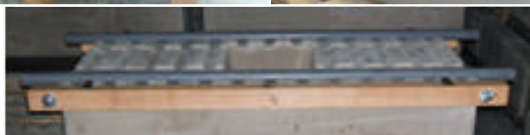
- Worldwide leader in monolithic solutions for Melting-Holding twin chamber furnaces
- Global best-sellers: **ALKON® CAST 204 / AF 481, ALKON® CAST HYMOR 80 AL** with excellent mechanical strength combined with strong corundum growth resistance and easy dross cleaning
- Cast in-situ, in house services, and modular prefabricated shape solutions for dosing furnaces
- For all casthouse types, monolithic solutions for metal ladles and launders focus on lifetime and thermal efficiency

# PRECAST SHAPES

## Precast Shapes in Focus

More and more aluminium producers are trusting Calderys to prefabricate blocks for their aluminium furnaces – Calderys can even perform the installation at your facilities. Precast shapes combine the maximum performance of monolithics (whatever their dry-out time) with high speed of installation at your site.

You can also ship us your equipment (up to 20 tonnes) for installation and dry-out by Calderys staff. Our precast service centres cast and install the precast pieces for you – the ultimate in hassle-free installation.



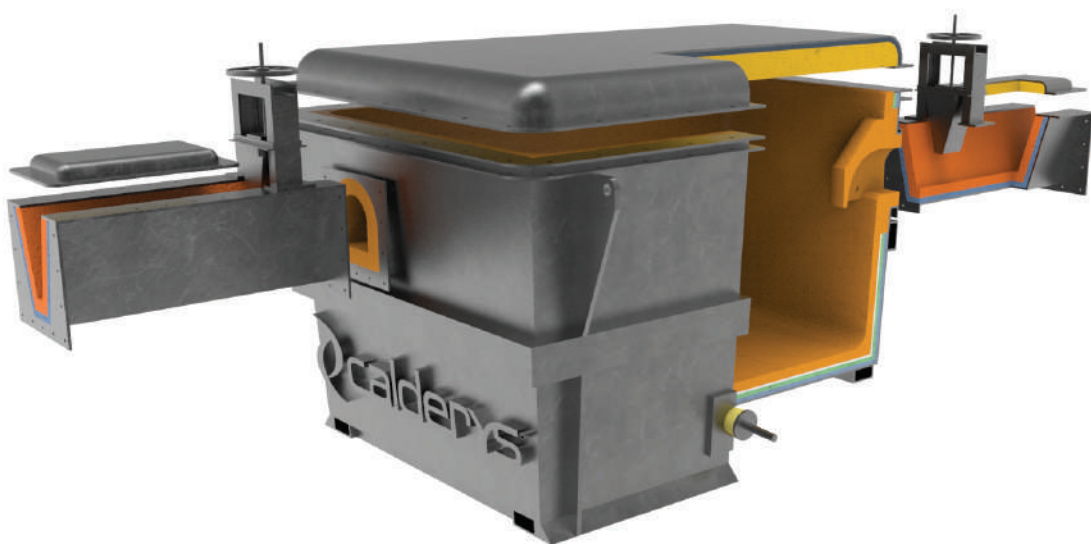
# INNOVATION

## Innovation in Focus

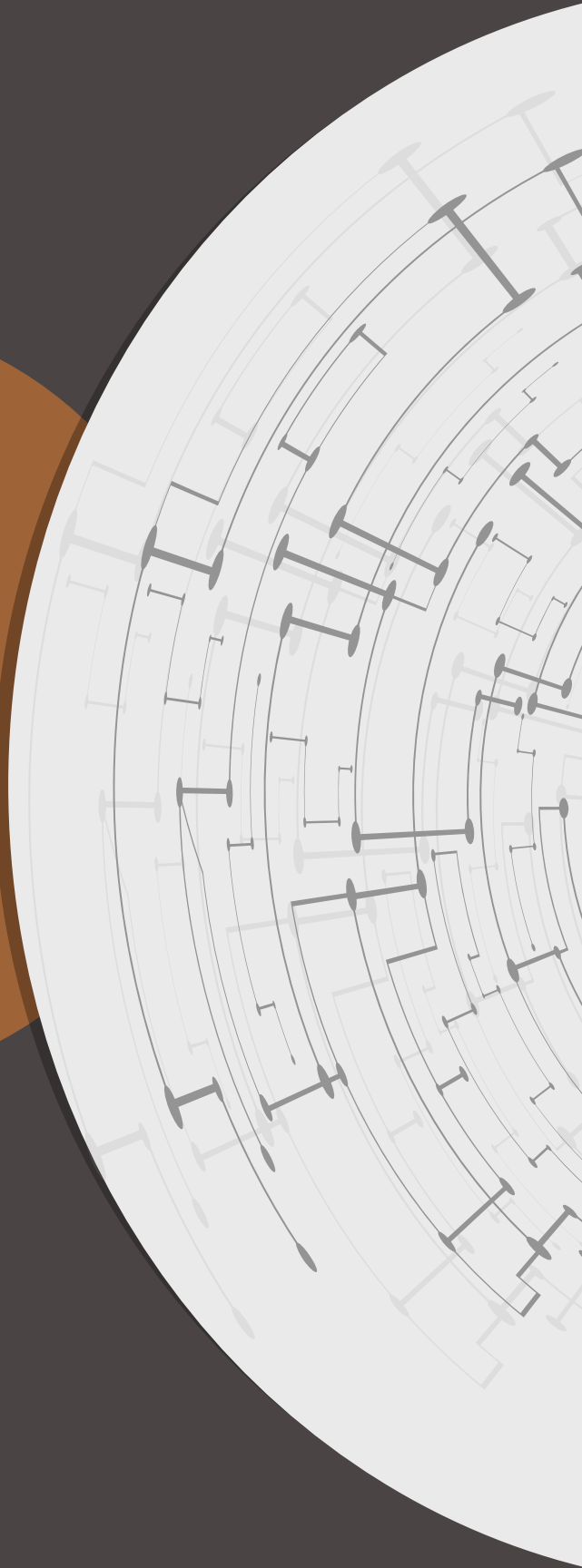
Calderys continues innovating, adapting our offerings to global developments thanks to the close collaboration within our **Calderys Expert Network** and **Imerys Science & Technology labs**.

We are the only monolithic refractory supplier offering the full range of monolithic technologies and applications to serve you best: hydraulic bond, no cement, sol-gel, 2 component P-bond cold setting, P-bond gun & brick solutions, as well as **CALDE® WIRE MIX**.

Continuous innovation has developed the Calderys product portfolio over decades, so you can benefit from our solutions which match any and all of your needs.







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