

# ALKON® SOL CAST HT : a complete refractory solution for melting furnaces



**BACKGROUND**  
Customers needs



**CONCEPT**  
Calderys solution



**SUMMARY**  
Recap of  
the solution



**RESULTS**  
Concrete  
benefits



### The background situation

The customer's process is made of mainly two different melting furnaces: a single chamber furnace and a front charging double chamber furnace. The furnaces melt scrap and ingots. The plant is mainly focused on producing wheels for the automotive market. The production process is over all constant.



### The request from the customer

The customer is often faced with high temperature abrasion and corundum growth. The melters also suffer from mechanical abuse. The customer requested a solution that had the following characteristics:

- Lifetime expectation > 2 years without equipment outage time
- Warranty expectations linked to refractory lifetime
- Reliable refractory concrete with a good quality / price ratio
- No dry out issues





### Analysis of the customer request

- Continuous process **>1,050°C** and no daily furnace cleaning
- Melters with thin erosion layer (est. 150 mm)
- Oxidation issues with the atmosphere
- Quick corundum build leading to deformation
- High abrasion

### Description of the solution developed by Calderys

In this particular case, Calderys offered a full turnkey solution:

- Review of the refractory construction
- Wrecking of the old lining
- Refractory relining after insulation with a key product: **ALKON®SOL CAST HT 2 C/P**. This product is suitable for all areas and known for resisting major impacts.
- Warranty fitted to customer expectations





### Benefits brought by the solution

The full turnkey offer granted the following benefits:

- Almost no wear after 2 years in operation
- A doubled lifetime for all lintel sections (repairs are usually necessary after 1 year of operation)
- Material development fitted the customer needs and exceeded overall performance expectations
- Great resistance with **ALKON®SOL CAST HT 2 C/P**
- No need for external burners for dry out







## Product presentation

ALKON®SOL CAST HT can be described as the best of monolithic and brick in just one product. It is particularly suited to:

- The harsh environments of secondary melting furnaces
- Furnace melting very corrosive alloys
- Furnaces regularly operating at high temperatures  $>1,200^{\circ}\text{C}$
- Timely sensitive maintenance projects

## Services - Expertise

Alongside products dedicated to Aluminum producers, Calderys has developed a full set of services over the years. From material selection, design layout and drawing to full turnkey projects including installation, dry out, maintenance and technical support. Customers worldwide benefit from a global network of experts, with local expertise.



# Thank you for your attention

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