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















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.

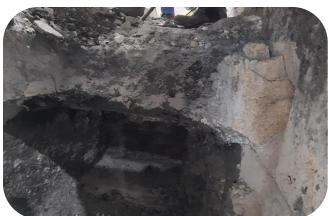


#### The request from the customer

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











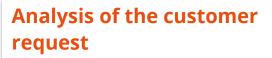












- Continuous process >1,050°C and no daily furnace cleaning
- Melters with thin erosion layer (est. 150 mm)
- Oxidation issues with the atmosphere
- Quick corundum build leading to deformation
- High abrasion

### **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









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#### **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







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#### **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°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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