

Optimisation of furnace life through use of KELLUNDITE 905 refractory material



KNOWLEDGE & PARTNERSHIP

THE CHALLENGE

The customer wanted a furnace lining with long refractory life for all grades of steel alloys and good working conditions over the entire temperature range. There was also a desire to improve performance from 70 heats with a competitive lining to 90-100 heats with the Foseco lining. They want an unsintered powder on the cold face that provides a performance safety margin and easy lining removal.

FOUNDRY:

Foundry in Turkiye specializes in low alloy steel casting with a maximum size limit of 25 tonnes finished weight and a capacity of 20,000 tons per annum.

PARAMETER

Alloys:	Steel
Furnace:	Inductotherm 2500 Kw 3500 kg capacity
Application Temp.:	1630°C carbon steel
Furnace Lifetime:	95 heats - 6 heats per day, 20 days campaign
Installation practice:	Former vibrator method, liquid sintering

FOSECO PRODUCTS

KELLUNDITE* 905 dry vibratable lining

OUR SOLUTION

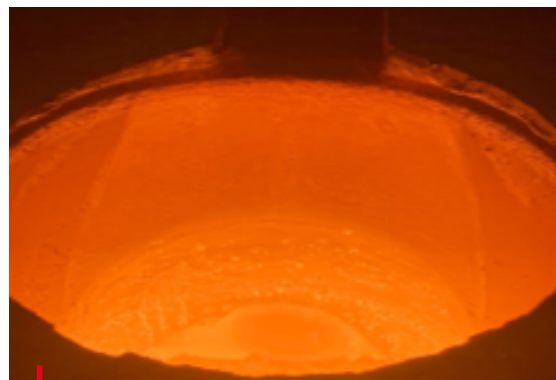
KELLUNDITE 905 spinel forming dry vibratable lining has been specifically developed with higher Al_2O_3 rate than standard neutral dry vibratables and a higher ratio of coarse grains to be used for Coreless Induction Furnaces melting all grades of steel.

KEY BENEFITS

- Long and consistent life
- No crack generation
- Increase powder at the back of lining

THE OUTCOME

By use of the Foseco linings we are able to reach an homogeneous and consistent lifetime of 95 heats. We have noticed a thick layer of unsintered material at the back (20 mm) at the end of the campaign. This powder represent 25% of the remaining thickness (80mm). Removal was also easier with less damages to the coil & coil grout.



Lining after sintering



Higher powder thickness at the back of lining

THINK BEYOND. SHAPE THE FUTURE.



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