



INSURAL Furnace Lining System for Aluminum Foundries Saves Energy and Reduces Downtime

PRESS RELEASE

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FOSECO has developed a new, insulating lining system for use in dosing and low-pressure furnaces in Aluminum foundries. The system, based on Foseco's INSURAL range of non-wetting and insulating refractories offers numerous benefits to the foundryman.

The adoption of energy efficient furnaces in aluminum foundries is widely regarded as best-in-class. However, the efficiency of these furnaces is often undermined by the choice of refractory lining. FOSECO is now able to supply a new, multi-part and highly insulating lining made of INSURAL. The lining, which is delivered ready to install, combines energy savings in combination with long service life and resistance to oxide build-up.

As the majority of the lining system is made of pre-cast INSURAL shapes, the installation can be completed in just three days, either by the foundry or by a refractory installation company.

Unlike traditional linings, no sintering is necessary! The furnace just needs to be pre-heated and maintained at working temperature for 48 hours. It is then ready for service.



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The INSURAL furnace lining system is completely dry. As a consequence, hydrogen pick-up from a new lining system is negligible and the melt density index goal can be achieved within a very short period following installation. Furnace downtime is dramatically reduced and the risk of increased scrap avoided. Due to the inherent non-wetting behavior of the lining system, corundum growth is minimal and cleaning of the furnace simplified.

The target: Fast turnaround. The solution: Dry installation of INSURAL precast, insulating shapes. The benefits are:

- + No sintering required
- + Significant energy savings
- + Extremely low corundum growth
- + Improved melt quality
- + Reduced hydrogen level after commissioning
- + Reduction of energy peaks
- + Can be installed on or off-site
- + Minimized downtime
- + Immediate achievement of a constant density
- + Easy to clean

