

CALDE® MAG GUN VELOCITY helps steelmakers reduce downtime with fast refractory gunning repairs

Paris, France - February 17th - Calderys, a global leader in high temperature solutions, introduces a new hot-gunning approach, improving furnace availability by increasing effective repair rates and cutting the number of maintenance interventions required in both Basic Oxygen Furnace and Electric Arc Furnace operations.

Addressing maintenance time restriction in steelmaking

Steelmaking operations depend on the availability of melting vessels. In both Basic Oxygen Furnaces and Electric Arc Furnaces, refractory linings are exposed to severe chemical, thermal and mechanical attack, resulting in progressive wear that must be managed through frequent maintenance. When repairs are slow or inefficient, they can become a driver of downtime, energy loss and operator safety exposure.

Material design focused on effective high-speed gunning

The CALDE® MAG GUN VELOCITY range is composed of a MgO-based refractory gunning material based on a multi-aggregate, multi-binder formulation, designed to promote rapid water extraction and strong adhesion during application. This mechanism results in a high effective gunning rate, with more than 80% of the applied material adhering to the lining, while limiting rebound, popping and spalling. The formulation also avoids the formation of low-temperature liquid phases, contributing to stable high-temperature behavior.

Application flexibility and integration into production schedules

In operational trials conducted in both EAF and BOF environments, CALDE® MAG GUN VELOCITY demonstrated improved durability compared with conventional gunning materials, allowing reduction in material consumption and in the number of gunning events required over a campaign. Reported results include extended furnace campaign life, reduced gunning time, and measurable gains in furnace availability.

The product has been successfully applied on both warm and hot linings, including applications immediately after tapping at temperatures of up to 1,500°C. This capability allows maintenance activities to be integrated more effectively into production schedules, reducing unplanned downtime and limiting energy losses associated with prolonged furnace openings.



"Steelmakers are asking for maintenance solutions that fit into very short operational windows while delivering consistent, predictable performance," said Bruno Touzo, Global Vice President, Innovation and Technology at Calderys. *"The CALDE® MAG GUN VELOCITY range was developed in close connection with these requirements, with a clear focus on application speed, durability and the practical realities of BOF and EAF maintenance."*

While initially introduced in EMEA, Calderys' global footprint and technical network create strong opportunities for customers worldwide to benefit from this solution. This launch reflects the strength of collaboration across our regions and our increasing momentum in innovation—a momentum we expect to further accelerate with our new Innovation Center in Germany."

Compatibility with high-speed and automated gunning equipment

CALDE® MAG GUN VELOCITY is compatible with high-speed gunning equipment, including automated and remote-controlled systems, supporting safer working conditions by reducing operator exposure time during maintenance operations.

With this development, Calderys continues to expand its portfolio of refractory solutions aimed at improving operational reliability, maintenance efficiency, and cost control in iron and steelmaking operations.

About Calderys

Calderys is a leading global provider for industries operating in high-temperature conditions. The Group specializes in thermal protection for industrial equipment with a wide range of refractory products and advanced solutions to enhance steel casting, metallurgical fluxes, and molding processes. With a presence in more than 30 countries and a strong footprint in the Americas through the brand HWI (HabisonWalker International), Calderys' international network of experts ensures an end-to-end offer with tailored services. Drawing on 160 years of experience, Calderys supports its customers in their energy transition needs. Headquartered in Paris, France, the Group counts 4,500 employees (excluding contractors), and more than 50 plants on five continents.

For more information, [visit www.calderys.com](http://www.calderys.com)

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