OPTA GRANULAR PRODUCTS

IRON & HOT METAL DESULFURIZATION

OPTA is a world leading provider of customized solutions for iron and hot metal desulfurization. We supply magnesium-based, calcium carbide-based and fluidized lime-based carrier reagents, along with blended solutions designed to remove impurities and enhance product quality.

MAGNESIUM-BASED REAGENTS

High-magnesium-content reagents can be used alone or co-injected with fluidized lime or calcium carbide. When co-injected, these reagents improve desulfurization efficiency, effectively reducing sulfur content and producing cleaner, more refined end products.

CALCIUM CARBIDE-BASED REAGENTS

Calcium carbide reacts with sulfur to form calcium sulfide (CaS), which separates from the molten metal. It is often used in conjunction with lime and magnesium in multi-injection processes to reduce reagent consumption and shorten injection time.

FLUIDIZED LIME-BASED CARRIER REAGENTS

Fluidized lime-based carrier reagents serve as both a carrier and a flux, ensuring the even distribution of desulfurizing agents. As a key component of our proprietary blends with calcium carbide and magnesium powders, it is sized and blended to prevent segregation and performs effectively as a mono-injected, sequenced and co-injected reagent.

BLENDED REAGENTS

Blended reagents are engineered combinations of iron oxide, lime and fluorspar that optimize the efficiency, consistency and performance of the iron desulfurization process. Whether used in mono-injection or co-injection systems, blended reagents provide greater process control and improved purity.

ADVANTAGES

- More effective desulfurization
- Increased process control
- Improved production efficiency
- Fewer defects in the final product

Partner with our technical team and leverage our deep industry expertise, cutting-edge technology and advanced technical services. We can tailor a solution to meet your specific process and quality requirements.

SCAN HERE

Optimal performance from tap to cast.

OPTA GRANULAR PRODUCTS

DEOXIDIZING SOLUTIONS & FLUXING ADDITIONS

OPTA has developed specialized deoxidizing and fluxing solutions to address the most complex challenges metal producers face. Our solutions and custom blended formulations are tailored to your practice to achieve a more precise melt chemistry.

CALCIUM CARBIDE

Calcium carbide is a slag-targeted deoxidizer that reacts with iron oxide to recover iron, generate fully fluxed lime and release carbon monoxide gas enhancing foamy slag formation. In the ladle, it improves alloy recovery, extends refractory life and provides a cost-effective deoxidation method. In the EAF, calcium carbide enhances foamy slag consistency, promoting furnace stability, improved alloy yields and longer refractory campaigns.

CUSTOM-BLENDED SLAG CONDITIONERS

Custom-blended slag conditioners are engineered formulations of lime, alumina, magnesia, fluorspar, calcium carbide and other fluxing agents designed to optimize slag performance. The granular form enhances handling, improves feeding accuracy and ensures uniform dispersion in the melt.

CUSTOM-BLENDED DEOXIDIZERS

Custom-blended deoxidizers are tailored formulations designed to enhance the predictability and consistency of deoxidation, even under highly variable operating conditions. Ideal for operations demanding precise control, each blend is engineered to optimize reaction rate and efficiency, minimizing secondary processing time and improving overall melt performance.

TUNDISH FLUXES

Tundish fluxes play a vital role in continuous steel casting by forming a protective thermal barrier on the surface of molten steel. This barrier minimizes heat loss, prevent reoxidation and trap non-metallic inclusions that float to the surface. By reducing surface turbulence, tundish fluxes prevent slag or oxides from entering the mold and protect refractory linings from oxidation and erosion ensuring a more stable, efficient casting process.

ADVANTAGES

- Greater process efficiency
- Extended refractory life
  Improved metal quality
- Enhanced mechanical properties
- Reduced scrap and rework

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