

TECHNICAL SHEET

OXY L105 Black core remover

CHEMICAL-PHYSICAL CHARACTERISTICS

Chemical base: inorganic soluble salts

Appearance: colourless liquid - yellowish

Solubility: water soluble

Density: approx. 1,27 g/cm³

FEATURES AND APPLICATIONS

OXY L 105 is an additive used to remove black core defect. Black core is the result of organic carbon that is left unoxidised in the mass of the tile itself, mainly due to the fast firing cycles and adverse atmosphere in the kiln. **OXY L 105** provides compounds that make it possible to oxidise carbons into carbon dioxide (CO₂) thus allowing its fast dispersion in the kiln's atmosphere.

The product comes in the form of a colourless liquid and can be injected into the spray drier feed line before the slip is atomized. The percentages of use are 0.5-2%.

HANDLING AND STORAGE

During handling, we recommend the use of adequate protections (gloves and goggles).

For storage it is recommended to store the product in a dry and ventilated place and to keep it stored in its original container.

Keep away from heat, sparks, flames and other sources of ignition. Compatible materials: steel and synthetic materials.

Not suitable: zinc, copper.

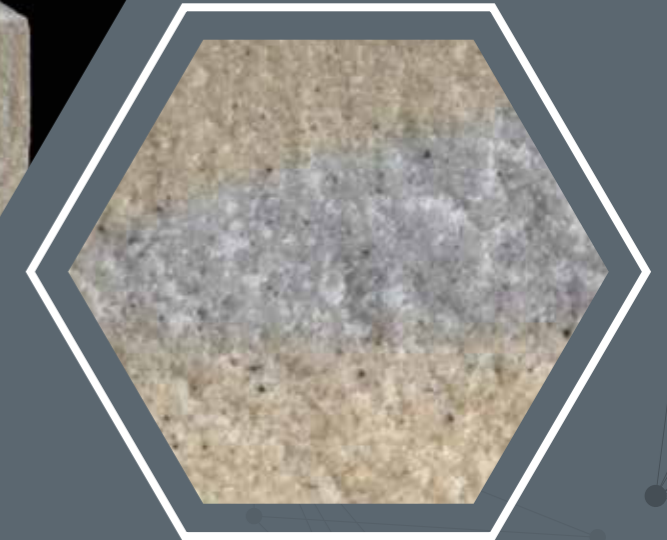
NOTES

OXY L 105 is available in 1000kg IBC tank.

If it is correctly stored, it may be preserved for at least 12 months.



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ADDITIVES TO ELIMINATE OR REDUCE THE BLACK CORE OXY L

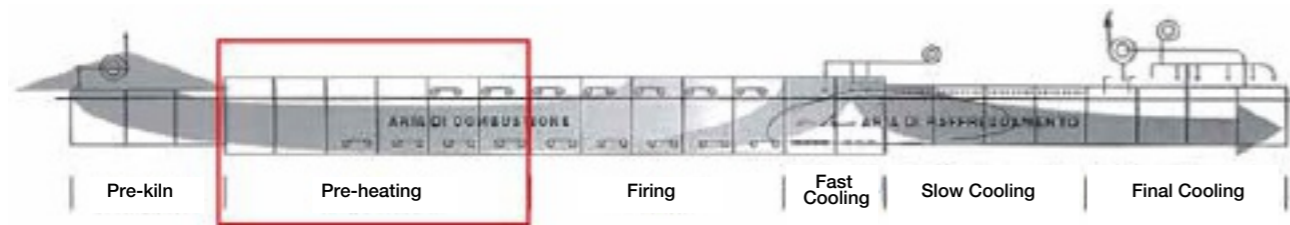
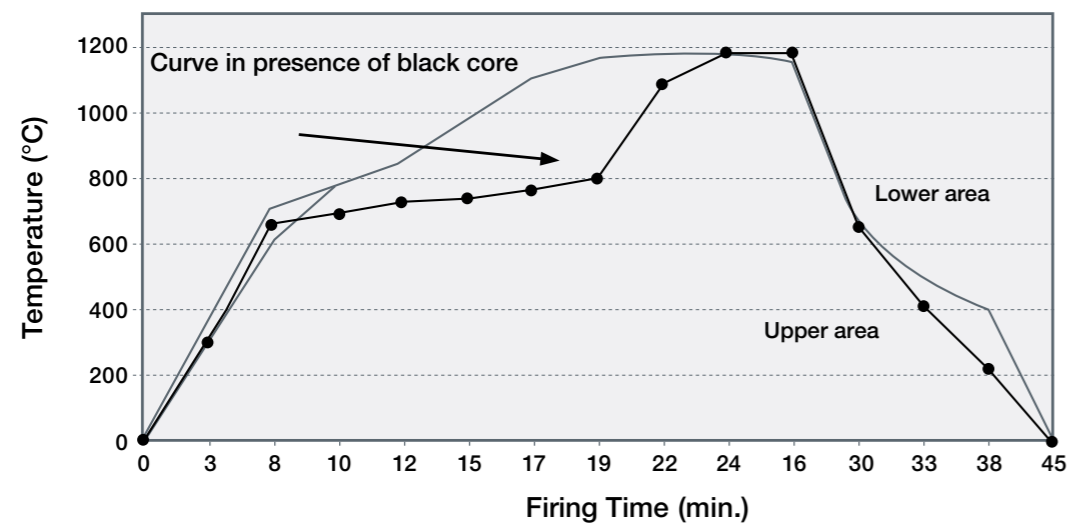


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ADDITIVES TO ELIMINATE OR REDUCE THE BLACK CORE OXY L

Producing without black core allows to improve the mechanical performances of the material, to eliminate the unaesthetic dark grey area inside the piece and, factor of primary importance, to reduce firing cycles increasing the productivity and reducing the costs.



The OXY L product range has the great advantage that it can be dosed directly into the vein before the sprayer.

Anti-black core additive OXY L

The problem known as “black core” has always accompanied the technological evolution of our sector.

The design innovations that have allowed the firing in a single solution, the research for increasingly cheaper mixtures, but above all constantly faster firing cycles, have forced the technologists to continually face this difficult problem.

This particular defect has been extensively studied and we know it is caused by the organic substances particularly present in clays. These minerals originated from the erosion of magmatic rocks and the subsequent deposit in lagoon and/or lake environments.

In this cyclic stratification the newborn clay formations have had the opportunity to trap inside them the organic substances deriving from the decomposition of organisms which, once their life cycle was over, were deposited on the seabed.

In modern firing cycles, when these hydrocarbons do not come into contact with a sufficient quantity of oxidizing substances, unfavorable conditions develop and the carbon oxidizes at the expense of other elements, among which the sulfur which thus remains blocked inside the ceramic body, originating the classic central bulge of dark grey color.

The research allowed to identify some possible solutions, among which one of the most effective is proposed by **Mistral Italia**.

OXY L products can be formulated by the laboratory according to process specifications, calibrating the amount of oxidising and deflocculant agents to optimise the oxidising capacity and rheological behaviour of the slip.

The product formulated in this way allows it to be easily distributed in the clay, and pre-dosing is particularly helpful. By means of an automatic system, the **OXY L** additive is injected into the spray drier feed line in a quantity proportional to the slip flow rate.

With the introduction of **OXY L** oxidising agents, besides the drastic reduction or disappearance of the black core defect, it is possible to increase production and save energy.

Thanks to its strong oxidising power, it allows a more rapid dispersion of the gaseous products generated in the mix and, consequently, a reduction in the firing time, with consequent economic and ecological benefits.