



PRODUCT DATA SHEET



STELOTOL™ Synthetic ingot teeming fluxes

SUMMARY

STELOTOL is an uphill teeming flux for ingot casting

DESCRIPTION

STELOTOL is available in two main forms, standard and low carbon. Both are free-flowing powders with controlled physical properties specially formulated to melt in a controlled manner. STELOTOL is supplied either in individual polythene bags containing the required weight, or in bulk bag.

APPLICATION

Used during the production of uphill casting of ingots and slabs requiring high quality surface finish, STELOTOL flux is applied in bags either thrown into the ingot during the early stages of casting when the steel just starts to rise up the ingot or, more preferably, suspended low down in the ingot mould just prior to casting. As the steel rises up the ingot the bag burns and the powder is dispensed onto the surface of the steel. An application rate of 2.0 to 2.5 Kg per tonne of steel is recommended.

FUNCTION

After the addition of STELOTOL a liquid slag is quickly formed which is in direct contact with the steel surface as it rises up the ingot. This liquid flux dissolves the non-metallic inclusions which rise to the surface, whilst providing a protective layer between the steel and the ingot mould. In addition a powdered layer is maintained on the surface which protects the steel from the atmosphere and prevents oxidation and temperature loss.

BENEFITS

- STELOTOL fluxes improve ingot surface quality, preventing cold lapping and the resultant macro gas porosity. This improved surface minimizes the amount of subsequent surface dressing which is required, increasing yield and reducing labour costs.
- Steel cleanliness is improved by the capture of non-metallic inclusions rising to the surface of the ingot during teeming and subsequent solidification.
- The STELOTOL powder layer prevents heat loss and ensures the ingot head maintains its temperature during solidification.
- The prevention of heavy 'scum' and 'ice' formation on the metal surface results in better ingot shoulders and improved feeding of the ingot.

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