



PRODUCT DATA SHEET



KALMIN™ Insulating sleeves and shapes

SUMMARY

KALMIN comprises a range of products of white or near white prefabricated low density insulating shapes used for lining the ingot head or casting stream protection.

DESCRIPTION

KALMIN products are used to line ingot mould feeder heads, to provide insulation and hence directional solidification and optimum feed or tubes for protecting the steel stream from the atmosphere during casting. For feeder head applications it is available in plain sleeve form or any shape required to conform with the contours of the ingot mould. KALMIN is particularly suitable for the heading of multi-fluted moulds, but shapes can be tailored for any mould configuration. It is used for all air casting applications and may be used for the casting of ingots under a partial back pressure of argon, as employed in some vacuum induction melting practices.

APPLICATION

In tube form, for the protection of the ladle stream, KALMIN is available in a range of diameters and lengths. For ingot heading, KALMIN insulating sleeves and shapes are produced to conform to the inside dimensions of an ingot mould. When inserted into the tops of ingot moulds, the units are preferably fitted flush with the mould top. To obtain optimum feed it is recommended that the mould be teemed short by about 25mm to provide adequate room for a layer of insulating or exothermic compound, to prevent the escape of heat to the atmosphere.

FUNCTION

KALMIN has excellent insulation properties and outstanding resistance to sudden temperature change, low specific heat, and very low moisture pick up, and is quick and easy to assemble.

Since the head metal in an ingot mould should be the last to solidify, in order to ensure a sound ingot it is important that heat losses through the sides of the cast iron ingot mould are minimized. To this end, particularly when casting tube steel and nickel alloys, KALMIN has been designed to provide a lightweight, highly insulating and refractory material which permits significant reductions in head volumes compared with conventional, denser insulators.

BENEFITS

- Highly effective insulation that exceeds that of more conventional denser products.
- Resilience and robust construction minimizes damage.
- Lightness in weight facilitates easy handling and application.
- Easy removal after casting.
- Easy cutting with a hacksaw blade.
- Inexpensive yet most efficient insulation of pilger ingot mould heads.
- Moisture resistance.

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