

Title (en)

PROCESS AND APPARATUS FOR MINIMIZING FOAM FORMATION DURING FREE FALLING OF MOLTEN METAL INTO MOULDS, LAUNDERS OR OTHER CONTAINERS

Publication

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Application

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Priority

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Abstract (en)

[origin: EP0150226A1] A process for minimizing foam formation on the surface of molten metal which forms a foam during free falling of molten metal, such as molten zinc, into moulds, launders or other containers is disclosed. The process comprises maintaining the molten metal during free falling thereof under an essentially non-oxidizing atmosphere so as to prevent entrainment of sufficient oxygen into the molten metal by the falling stream to form an excessive amount of bubbles having a tenacious oxidized film and which do not collapse when they float to the surface of the molten metal but rather produce undesirable foam on the surface. The process is preferably carried out on a continuous casting machine by providing a cover plate mounted at a predetermined distance above the cover plate and having an aperture therein for casting molten metal. The cover plate extends before and after such aperture and has a predetermined number of gas inlet ports from feeding a non-oxidizing gas through the cover plate to progressively develop a non-oxidizing atmosphere in the container as they approach the aperture in the cover and to maintain such atmosphere in the containers as they pass the aperture.

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