

Title (en)

SECONDARY COOLING METHOD AND SECONDARY COOLING APPARATUS FOR CONTINUOUS CASTING SLAB

Title (de)

SEKUNDÄRKÜHLVERFAHREN UND SEKUNDÄRKÜHLEINRICHTUNG FÜR STRANGGUSSPLATTE

Title (fr)

PROCÉDÉ DE REFROIDISSEMENT SECONDAIRE ET APPAREIL DE REFROIDISSEMENT SECONDAIRE POUR BRAME DE COULÉE CONTINUE

Publication

EP 3998126 A1 20220518 (EN)

Application

EP 20836022 A 20200706

Priority

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- JP 2020026487 W 20200706

Abstract (en)

A secondary cooling method and a secondary cooling apparatus for a continuously cast slab by which secondary cooling can be efficiently performed without a large capital investment are provided. A secondary cooling method for a continuously cast slab by which a cast slab 3 cast by a continuous casting machine 1 is subjected to secondary cooling in a secondary cooling zone 11 including a vertical zone 5, a curved zone 7, and a horizontal zone 9 includes a first cooling step performed in a first cooling portion 13, which is an upstream portion in the horizontal zone 9, and a second cooling step performed in a second cooling portion 15, which is a downstream portion in the horizontal zone. The first cooling step includes cooling of the cast slab with cooling water supplied at a flow density of 300 to 4000 liter/(m²·min) so that the cooling water on a surface of the cast slab is in a nucleate boiling state in the first cooling step. The second cooling step includes cooling of the cast slab with the cooling water supplied at a flow density of 2% or more and 50% or less of the flow density of the cooling water in the first cooling step so that the nucleate boiling state of the cooling water on the surface of the cast slab is maintained in the second cooling step.

IPC 8 full level

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CPC (source: CN EP KR)

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Cited by

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EP 20836022 A 20200706; CN 202080050446 A 20200706; JP 2020026487 W 20200706; JP 2021530691 A 20200706; KR 20227000523 A 20200706; TW 109123326 A 20200710