

Title (en)

PARTICULATE SLAGGING AGENT AND PROCESS FOR THE CONTINUOUS CASTING OF STEEL

Publication

**EP 0015417 B1 19830413 (DE)**

Application

**EP 80100749 A 19800214**

Priority

- US 1464979 A 19790223
- US 2692579 A 19790404

Abstract (en)

[origin: EP0015417A1] 1. Finely-divided slagging agent for the continuous casting of steel which tends to release aluminium oxide into the slagging agent during its use in the molten state, characterised in that it has a fluidity of about 10.2 to 40.6 cm (4 to 16 inches), a melting range which, at most, is not substantially above 1,260 degrees C (2,300 degrees F) and a start-up ADK value of not more than 500 seconds, and is further characterised by the following theoretical net oxide analysis values in the ranges mentioned below, the percentages being understood as percentages by weight and being chosen so that the sum is 100% : Constituents of the fluxing agent (\*) % by weight (\*\*) CaO\* (\*) 0-42 (\*\*) MgO\* (\*) 0-20 (\*\*) BaO\* (\*) 0-20 (\*\*) SrO\* (\*) 0-20 (\*\*) MnO\* (\*) 0-20 (\*\*) FeO\* (\*) 0-18 (\*\*) F\* (\*) 4-16 (\*\*) B2 O3 \* (\*) 0-15 (\*\*) Na2 O (\*) 1-25 (\*\*) K2 O (\*) 0-5 (\*\*) Li2 O (\*) 0-5 (\*\*) V2 O5 (\*) 0-1 (\*\*) NiO (\*) 0-2 (\*\*) CuO (\*) 0-2 (\*\*) ZnO (\*) 0-1 (\*\*) TiO2 (\*) 0-5 (\*\*) ZrO2 (\*) 0-3 (\*\*) CoO (\*) 0-2 (\*\*) Cr2 O3 (\*) 0-2 (\*\*) MoO3 (\*) 0-1 (\*\*) Glass network former (\*) SiO2 (\*) 20-40 (\*\*) Al2 O3 (\*) 0-12 (\*\*) P2 O5 (\*) 0-10 (\*\*) B2 O3 (\*) included above (\*\*) and the ratio of the sum of the theoretical net oxide analysis values of the fluxing-agent constituents marked with an asterisk to the theoretical net oxide analysis value of SiO2 (this ratio is designated as the R' ratio) is fixed beforehand at 1.5:1 to 3:1 in order to reach an operational ADK value which is not substantially above 750 seconds at most.

IPC 1-7

**B22D 11/10; C21C 7/00**

IPC 8 full level

**B22D 11/111** (2006.01)

CPC (source: EP)

**B22D 11/111** (2013.01)

Cited by

CN107530769A; EP2695953A4; US5782956A; EP0141523A1; CN106001473A; CN112756571A; CN108213366A; CN109797269A; CN105436447A; EP0109153A1; US4561894A; CN107824754A; CN113102702A; WO9213661A1; WO9825717A1

Designated contracting state (EPC)

AT BE DE FR GB IT LU NL SE

DOCDB simple family (publication)

**EP 0015417 A1 19800917; EP 0015417 B1 19830413**; CA 1150516 A 19830726; DE 3062658 D1 19830519; ES 488867 A0 19801216; ES 8101954 A1 19801216

DOCDB simple family (application)

**EP 80100749 A 19800214**; CA 346288 A 19800222; DE 3062658 T 19800214; ES 488867 A 19800222