

Title (en)
FURNACE AGGREGATE

Title (de)
OFENAGGREGAT

Title (fr)
AGRÉGAT DE FOUR

Publication
EP 2010850 B1 20091125 (EN)

Application
EP 07721816 A 20070418

Priority
• CZ 2007000027 W 20070418
• CZ 2006257 A 20060421

Abstract (en)
[origin: WO2007121689A2] Furnace aggregate consisting of two sidewalls, ceiling formed by modules made of ceramic fiber mats, input and output gates, where this furnace aggregate, in direction from the input gate, is divided into pre-heating, firing and cooling zones. Sidewalls are in their lower parts formed by lines of alternately laid large-format ceramic blocks (1) equipped with vertical and horizontal interlocking joints, which have continuous openings (2). Above these lines of blocks (1) a labyrinth is created from both-sided interlocking sidewall stone (3) or interlocking plate (31) and above this labyrinth are again lines of blocks (1) placed alternately on each other. Outer sides of sidewalls are equipped with lining from insulation bricks (4) and covered by assembly mutually joint by refractory steel anchors and formed by ceramic fiber insulation (5), insulation plates (6) and outer encasement (7), which is in the cooling zone of the furnace equipped with the cooling system piping. Sidewalls are at their top edge equipped with refractory reinforcement (20) with interlock for settling the ceiling. Ceiling is formed by module assemblies allowing mutual connection consisting of ceramic fiber mats (10) equipped on their sides with interlocking joints and having in their bodies at least one puncture (11). Module assembly is formed by two modules of ceramic fiber mats (10) interlocked by interlocking joints mounted to at least one ceramic anchor (12). Ceramic fiber mats (10) and ceramic anchors (12) are horizontally traversed by at least one spike (13). Ceramic anchors (12) are led outside the ceramic fiber mats (10) by means of a head (14) adjusted for mounting the assembly to a welded structure from pressed profiles (15) located above each line of ceramic fiber mats (10) in direction of longitudinal axis of such line. Module assemblies have ends adjusted for settling to the interlocking joints on sidewalls reinforcement (20) of the furnace aggregate.

IPC 8 full level
F27B 9/34 (2006.01); **F27D 1/02** (2006.01); **F27D 1/04** (2006.01); **F27D 1/12** (2006.01); **F27D 9/00** (2006.01)

CPC (source: EP)
F27B 9/34 (2013.01); **F27D 1/025** (2013.01); **F27D 1/04** (2013.01); **F27D 9/00** (2013.01)

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC MT NL PL PT RO SE SI SK TR

DOCDB simple family (publication)
WO 2007121689 A2 20071101; **WO 2007121689 A3 20071213**; AT E449943 T1 20091215; CZ 2006257 A3 20070704; CZ 298145 B6 20070704; DE 602007003464 D1 20100107; EP 2010850 A2 20090107; EP 2010850 B1 20091125

DOCDB simple family (application)
CZ 2007000027 W 20070418; AT 07721816 T 20070418; CZ 2006257 A 20060421; DE 602007003464 T 20070418; EP 07721816 A 20070418