

Title (en)  
FIRE DOOR

Title (de)  
BRANDSCHUTZTÜR

Title (fr)  
PORTE COUPE-FEU

Publication  
**EP 3839190 A1 20210623 (EN)**

Application  
**EP 20213928 A 20201214**

Priority  
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Abstract (en)

The present invention relates to a fire door (1) comprising: - a load-bearing structure (10) which is defined by two metal sheets (2, 3), which are folded and coupled together around the perimeter, so as to delimit a closed cavity (4) therebetween and inside said load-bearing structure, said two metal sheets (2, 3) defining an inner face and an outer face, respectively, of said fire door (1); - fire-retardant thermal insulation material (9) arranged as filler inside said closed cavity (4); - one or more stiffening elements (11, 12) arranged inside said cavity (4) to counteract thermal deformations induced on said load-bearing structure (10) by a thermal gradient between said inner face and said outer face; - two or more hinges (6) suitable to connect said fire door (1) to a fixed support frame (5) and arranged at a first vertical perimeter side (10a) of said load-bearing structure (10); - a lock (7) suitable to lock said fire door (1) closed to said fixed frame (5) and arranged at a second vertical perimeter side (10b) of said load-bearing structure (10), opposite to the first vertical side (10a). The aforesaid one or more stiffening elements (11, 12) consist of elongated bodies having a prevailing longitudinal direction of extension (X1, X2), arranged along one or more perimeter sides of said load-bearing structure (10) and are made of austenitic or austenitic-ferritic stainless steel. Said stiffening elements (11, 12) are arranged along only one or both the following sides of said load-bearing structure (10): - said second vertical perimeter side (10b) opposite to the first vertical perimeter side (10a); - an upper horizontal side (10c) connecting said two vertical sides (10a; 10b).

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Citation (search report)  
• [I] US 4888918 A 19891226 - GREEN F RICHARD [US], et al  
• [A] DE 19651699 C1 19980115 - SCHROEDERS THEO [DE]

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