

Title (en)  
NATURAL STONE PLATE AND METHOD FOR THE PRODUCTION THEREOF

Title (de)  
NATURSTEINPLATTE UND VERFAHREN ZUR HERSTELLUNG

Title (fr)  
DALLE EN PIERRE NATURELLE ET SON PROCEDE DE PRODUCTION

Publication  
**EP 1409809 B1 20051116 (DE)**

Application  
**EP 02717944 A 20020208**

Priority  

- DE 0200462 W 20020208
- DE 10106602 A 20010209
- DE 10126247 A 20010529
- DE 10201722 A 20020118

Abstract (en)  
[origin: WO02064903A3] The aim of the invention is to provide a natural stone plate arrangement and to disclose a method for the production thereof, wherein a natural stone plate having only a small amount of thickness can be provided with sufficiently high bending tensile strength, in order to be machined and transported in relatively large dimensions. According to the invention, a flat reinforcing layer having high tensile strength with a very high modulus of elasticity in relation to the natural stone plate is bonded at least in areas of high tensile strain on the lower part of the natural stone plate by means of a first adhesive layer, and a light density material layer is fixed on the lower side of the reinforcing layer by means of a second adhesive layer, wherein a flat element made of natural stone is applied by temporary fixing on a fixing device, wherein at least one fixing device is arranged on at least one side of the flat element and a liquid or gel is applied between the fixing device and the flat element, whereupon the liquid or gel is subsequently cooled to at least the freezing point thereof and an adhesive bond arises between the fixing device and the flat element, whereupon the flat element is subsequently separated and provided with reinforcing elements. The invention relates to a natural stone plate, especially a thin natural stone plate, which is provided with additional elements for increasing the solidity thereof, and also relates to a method for the production thereof.

IPC 1-7  
**E04C 2/26**

IPC 8 full level  
**B28D 1/00** (2006.01); **B28D 7/04** (2006.01); **E04C 2/26** (2006.01); **E04F 13/14** (2006.01)

CPC (source: EP)  
**B28D 1/005** (2013.01); **B28D 7/04** (2013.01); **E04C 2/26** (2013.01); **E04F 13/144** (2013.01)

Cited by  
DE102010034851A1; DE102010034851B4

Designated contracting state (EPC)  
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

DOCDB simple family (publication)  
**WO 02064903 A2 20020822**; **WO 02064903 A3 20021010**; AT E310134 T1 20051215; AU 2002249069 A1 20020828;  
DE 10290520 D2 20040415; DE 50204958 D1 20051222; EP 1409809 A2 20040421; EP 1409809 B1 20051116

DOCDB simple family (application)  
**DE 0200462 W 20020208**; AT 02717944 T 20020208; AU 2002249069 A 20020208; DE 10290520 T 20020208; DE 50204958 T 20020208;  
EP 02717944 A 20020208