

Title (en)

SUPPORTING STRUCTURE FOR FREEFORM SURFACES IN BUILDINGS

Title (de)

TRAGSTRUKTUR FÜR FREIFORMFLÄCHEN IN BAUWERKEN

Title (fr)

STRUCTURE PORTEUSE POUR DES SURFACES DE FORME LIBRE DANS LE BÂTIMENT

Publication

EP 2029822 A2 20090304 (DE)

Application

EP 07718510 A 20070620

Priority

- AT 2007000302 W 20070620
- AT 10492006 A 20060621

Abstract (en)

[origin: WO2007147188A2] Supporting structure (8) for curved envelope geometries in buildings consisting of support elements (4) which are each combined to form N-sided polygons (N=3,4,...) which span the envelope geometry and which each enclose a planar surface element (5), and the support elements (4) of adjacent N-sided polygons each form a common node region (3) in which the support elements (4) abut, and the plane of a surface element (5) and the respective planes of the surface elements (5) of two N-sided polygons which adjoin in non-parallel spatial directions lie in different planes in at least one portion of the envelope geometry. According to the invention, the support elements (4) in this portion each form 4- or 6-sided polygons, and the support elements (4) each have a longitudinal axis (L) which extends in a straight line between in each case two node regions (3) and runs parallel to the imaginary intersection line of the surface element planes associated with said portion, wherein the cross section of the support elements (4) normal to their longitudinal axis in each case has a relative twist angle of 0° along the entire longitudinal axis of the support element (4).

IPC 8 full level

E04B 1/19 (2006.01); **E04B 7/10** (2006.01)

CPC (source: EP US)

E04B 1/32 (2013.01 - EP US); **E04B 7/105** (2013.01 - EP US); **E04B 2001/3252** (2013.01 - EP US); **E04B 2001/3294** (2013.01 - EP US)

Citation (search report)

See references of WO 2007147188A2

Cited by

CN102645201A

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

Designated extension state (EPC)

AL BA HR MK RS

DOCDB simple family (publication)

WO 2007147188 A2 20071227; **WO 2007147188 A3 20080214**; **WO 2007147188 A8 20090409**; AT 503021 A4 20070715; AT 503021 B1 20070715; AT E445744 T1 20091015; DE 502007001749 D1 20091126; EP 2029822 A2 20090304; EP 2029822 B1 20091014; US 2010162637 A1 20100701

DOCDB simple family (application)

AT 2007000302 W 20070620; AT 07718510 T 20070620; AT 10492006 A 20060621; DE 502007001749 T 20070620; EP 07718510 A 20070620; US 30861707 A 20070620