



**Technical and Test Institute for
Construction Prague**
Prosecká 811/76a
190 00 Prague
Czech Republic
tel.: +420 286 019 400
www.tzus.cz



www.eota.eu

European Technical Assessment

**ETA 22/0649
of 29/05/2023**

General Part

Technical Assessment Body issuing the European Technical Assessment:
Technical and Test Institute for Constructions Prague

Trade name of the construction product

CBG EasyPan 100

**Product family to which the construction
product belongs**

Product area code: 21
Internal partition kit for use as non-
loadbearing walls for fire compartmentation
in building construction

Manufacturer

CBG Composites GmbH
Egerpohl 2,
516 88 Wipperfürth,
Germany
<https://www.cbg-composites.de>

Manufacturing plant(s)

CBG Composites GmbH
Egerpohl 2,
516 88 Wipperfürth,
Germany

**This European Technical Assessment
contains**

22 pages including 13 pages of annexes
which form an integral part of this
assessment.

**This European Technical Assessment is
issued in accordance with Regulation
(EU) No 305/2011, on the basis of**

EAD no: 210005-00-0505
Internal partition kits for use as non-
loadbearing walls

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Specific parts

1. Technical description of the product

This European technical assessment applies to the internal partition kit **CBG EasyPan 100** made of composite interior panels and mounting accessories which is intended for fire compartmentation in building construction, i.e. the compact internal partition wall for fire compartmentation of rooms in buildings with fire resistance requirements. Testing and assessment don't include a partition kit with any fire compartment doors, windows or cable glands. Allowed modifications of dimensions are stated in the Classification report of fire resistance.

Description of the CBG EasyPan-100 internal partition panel kit:

The manufacturer of all CBG components used is the company CBG Composites GmbH.

Panels with standard dimensions 600 mm x 2975 mm x 100 mm (width x height x thickness) composed of two thin-walled vertical steel CBG U-Profiles 75/40/0.6.004 with dimensions 75 mm x 2975 mm x 0.6 mm (width x height x thickness) and two CBG SeaPan WP 25/G panels with dimensions 600 mm x 2975 mm x 24.75 mm + 25.05 mm (width x height x thickness) with an air gap of 48.5 mm between them. The U-profile was glued with CBG LR Ceramatrix 01-50 adhesive into the groove in the CBG LifeRock MW-180 mineral wool of the CBG SeaPan WP 25/G panel at a distance of 12 mm from the outside of the panel.

The CBG SeaPan WP 25/G panel composed of the following layers (description from the outside when placed in the CBG EasyPan-100):

- CBG TopSkin
- CBG LR Ceramatrix 01-50
- CBG LtBC-480, CBG LtGC-300
- CBG LifeRock MW-180
- CBG Ceramant 01-50
- CBG BCR Mesh

Description of the layers:

CBG TopSkin is a 0.35 mm thick flame retardant composite surface board. The base of the composite material is a layer of aluminium on which a fibrous material impregnated with CBG LR Ceramatrix 01-50 is applied on both sides.

CBG LR Ceramatrix 01-50 is a low viscosity, one-component, non-flammable adhesive with endothermic effect. It consists of natural ingredients, mainly rocks and basalt microfibres. Adhesive layer thickness 0,1 mm - 0,4 mm.

CBG LtBC-480 single-layer basalt-ceramic laminate with a thickness of 0.4 mm, consisting of basalt fabric CBG-480 with a nominal surface density of 480 g/m², impregnated with CBG Ceramatrix 02-50.

CBG LtGC-300 (manufacturer CBG Composites GmbH) single-layer glass-ceramic laminate with a thickness of 0.3 mm, consisting of glass-textile fabric CBG-300 with a nominal surface density of 300 g/m², impregnated with CBG Ceramatrix 02-50.

CBG Life Rock MW-180, 23 mm thick, mineral wool core with a nominal density of 180 kg/m³ ± 10 %. The core fibres consist mainly of basalt rock with multidirectional orientation.

CBG Ceramant 01-50 is an inorganic flame retardant adhesive based on modified silicates. The adhesive thickness is 0.1 mm.

CBG BCR Mesh with a thickness of 0.5 mm consists of a structured material with a mesh size of 10-12 mm made of basalt roving. Impregnated with CBG Ceramatrix 02-50 adhesive.

Installation description:

Construction of partitions consisted of CBG EasyPan 100 panels and horizontally positioned CBG U-profile 28x27x0.6 mm steel profiles located on the top side of the partition and CBG L-profiles 100x40x0.8 and CBG L-profiles 55x55x0.8 located on the bottom side of the partition.

The upper horizontal CBG U-profile 28x27x0.6 mm with a length of 3000 mm was anchored to the supporting structure using hammered dowels N 6x60/30S with screws including washers, screw spacing 500 mm. CBG Gasket LifeRock MW-180 mineral wool sealing strip with dimensions 100 mm x 3000 mm x 12 mm (width x length x thickness) was inserted in full length between the support structure and the CBG U profile 28x27x0.6 mm, the mineral wool was glued to the U-profile by double-sided adhesive tape.

The lower horizontal CBG L-profile 100x40x0.8 mm with a length of 2000 mm and 1000 mm was anchored to the supporting structure using hammered dowels N 6x60/30S with screws including washers, screw spacing 500 mm. CBG Gasket LifeRock MW-180 mineral wool sealing strip with dimensions 100 mm x 3000 mm x 12 mm (width x length x thickness) was inserted in full length between the CBG L-profile 100x40x0.8 mm and the floor.

Individual CBG EasyPan-100 panels were anchored to each other using integrated vertical CBG U-profiles 75/40/0.6.004, which contained system joints (i.e. a groove on one side, a convex profile on the other) at intervals of 650 mm. In the upper part of CBG U-Profilech 75/40/0.6.004, two grooves were created to a depth of 27 mm with a mutual distance of 25.8 mm, used for mounting on the upper horizontal anchoring CBG U-Profil 28x27x0.6 mm.

The lower parts of the panels were placed on the installed CBG L-profile 100x40x0.8 mm. Each panel was secured by a second CBG L-profile 55x55x0.8 with a length of 1000 mm and 2000 mm. The panels were anchored on both sides in the lower corners to the supporting structure of the frame using self-tapping screws Ø 3.5x45 mm at a distance of 20 mm from the upper edge of the CBG L-profiles and at a distance of 20 mm from vertical edges of CBG EasyPan 100 panels.

The panels were glued together using two types of adhesives. The metal CBG U-profiles of the panels were bonded with CBG PU-400 one-component polyurethane adhesive. The mineral wool parts of the panels were bonded with CBG LR Ceramatrix 01-50.

The panels were glued to the vertical support structure using CBG LR Ceramatrix 01-50. The joints were sealed along the perimeter of the entire partition between the support structure and the panels using a fire-resistant CBG BioFiber Mat ceramic fiber mat with a nominal density of 128 kg/m³ and a thickness of 25 mm.

After installation of all panels, their surface was covered with CBG LR Ceramatrix 01-50 diluted adhesive.

Weight of the standard size panel is 30 kg/pc.

Table No. 1 Type of panel surface

Trade name	Front skin	Back skin
CBG EasyPan 100	CBG TopSkin (Rebar Ceramic-Glaze non-combustible laminate) 1200 g/m ²	CBG TopSkin (Rebar Ceramic-Glaze non-combustible laminate) 1200 g/m ²

The partition panels CBG EasyPan 100 are made of innovative materials based on basalt, glass and ceramic materials. In regard to the chemical composition data of the elements (layers), the producer declares the maximal mass content of organic substances up to 5% (CBG TopSkin).

All mounting and fixing details shall be executed according to the manufacturer's installation manual.

2. Specification of the intended use(s) in accordance with the applicable European Assessment Document (hereinafter EAD)

2.1 Intended use

The internal non-loadbearing partition kit CBG EasyPan 100 is intended for fire compartmentation. The use is intended to exposures corresponding to categories as specified in:

- **Annex B of the EAD: Category III**

Zones accessible primarily to those with little incentive to exercise care. Risk of accidents occurring and of misuse.

- **Eurocode 1 (EN 1991-1-1): categories A, B, C1-C4, D1-D2**

Area category A: Areas for domestic and residential activities

(A category examples: Rooms in residential buildings and houses; bedrooms and wards in hospitals; bedrooms in hotels and hostels, kitchens and toilets)

Area category B: Office areas

(B category examples: office buildings and office premises)

Area category C1-C4: Areas where people may congregate

(C1 category examples: Areas with tables, etc., e.g. areas in schools, cafés, restaurants, dining halls, reading rooms, receptions)

(C2 category examples: Areas with fixed seats, e.g. areas in churches, theatres or cinemas, conference rooms, lecture halls, assembly halls, waiting rooms, railway waiting rooms).

(C3 category examples: Areas without obstacles for moving people, e.g. areas in museums, exhibition rooms, and access areas in public and administration buildings, hotels and railway station forecourts).

(C4 category examples: Areas with possible physical activities, e.g. dance halls, gymnastic rooms, stages).

Area category D1-D2: Shopping areas

(D1 category examples: Areas in general retail shops)

(D2 category examples: Areas in department stores)

The ETA is issued for the above mentioned product on the basis of agreed data/information, deposited with the Technical Assessment Body - Technical and Test Institute for Construction Prague, which identifies the product that has been assessed.

2.2 Assumed working life

Provisions made in this European Technical Assessment are based on an assumed intended working life of 25 years, provided that the assembled product is subject to appropriate use and maintenance in accordance with this ETA.

Indications given regarding the working life cannot be interpreted as a guarantee given by the producer or the Technical and Test Institute for Construction Prague, but are to be regarded only as a mean for choosing the appropriate product(s) in relation to the expected economically reasonable working life of the construction works.

3. Performance of the product and references to the methods used for its assessment

The characteristics of product and methods of verification of the CBG EasyPan 100 Internal partition kit for use in construction were carried out in compliance with the EAD no 210005-00-0505:2019

The declared properties refer to the sample of the internal partition panel kit CBG EasyPan 100 as described in chapter no 1.

Table No. 2: Essential characteristics: Product **CBG EasyPan 100** Internal partition panel kit for use as non-loadbearing walls for fire compartmentation in building construction (if not stated otherwise):

No	Essential characteristic and method of verification and assessment	Expression of product performance (level, class, description)	
Basic Works Requirement 2: Safety in case of fire			
1	Reaction to fire (Cl.2.2.1 of EAD 210005-00-0505)	Class A2 - s1, d0	
2	Resistance to fire (Cl.2.2.2 of EAD 210005-00-0505)	E 120 / EI 120 / EW 120 E 90* / EI 90* / EW 90* <i>Note: Valid for a compact internal partition wall without doors or windows</i> <i>*At the customer's request, the fire resistance of 90 minutes is indicated here too.</i>	
Basic Works Requirement 3: Hygiene, health and the environment			
3	Content, emission and/or release of dangerous substances (Cl.2.2.3 of EAD 210005-00-0505)	No performance assessed	
4	Water vapour permeability (Cl.2.2.4 of EAD 210005-00-0505)	No performance assessed	
Basic Works Requirement 4: Safety and accessibility in use			
5	Sill height (Cl.2.2.5 of EAD 210005-00-0505)	No performance assessed	
6	Resistance to damage and functional failure from horizontal loads (Cl.2.2.6 of EAD 210005-00-0505)	Category as specified in annex B of the EAD	III
7	Resistance to damage and functional failure from eccentric vertical loads (Cl.2.2.7 of EAD 210005-00-0505)	No performance assessed	
8	Resistance to horizontal linear static loads (Cl.2.2.8 of EAD 210005-00-0505)	Category as specified in annex B of the EAD	III
		Area category as specified in Eurocode 1 EN 1991-1-1	C1-C4, D1-D2
9	Resistance to functional failure from point loads parallel or perpendicular to the surface (Cl.2.2.9 of EAD 210005-00-0505)	No performance assessed	
10	Rigidity of partitions to be used as a substrate for ceramic tiling. (Cl.2.2.10 of EAD 210005-00-0505)	Conformity	

No	Essential characteristic and method of verification and assessment	Expression of product performance (level, class, description)
11	Safety against personal injuries by contact. (Cl.2.2.11 of EAD 210005-00-0505)	No sharp or cutting edges.
12	Resistance to deterioration caused by: - physical agents - chemical agents - biological agents (Cl.2.2.12 of EAD 210005-00-0505)	No performance assessed
Basic Works Requirement 5: Protection against noise		
13	Airborne sound insulation (Cl.2.2.13 of EAD 210005-00-0505)	R _w = 39,3 dB (-2,0; -6,0) <i>Note: Valid for a compact internal partition wall without doors or windows.</i>
14	Sound absorption (Cl.2.2.14 of EAD 210005-00-0505)	α _w =0,15 (LH) Class E low absorbent
Basic Works Requirement 6: Energy economy and heat retention		
15	Thermal resistance (Cl.2.2.15 of EAD 210005-00-0505)	No performance assessed
16	Thermal inertia (Cl.2.2.16 of EAD 210005-00-0505)	No performance assessed

4. Assessment and verification of constancy of performance (hereinafter AVCP) system applied, with reference to its legal base

For the products covered by this ETA the applicable European legal act is:

Regulation (EU) No 305/2011, amended by Decision 98/213/ES Internal partition kits

For use **as non-loadbearing walls** the AVCP system: **3**

Note : There is no identifiable stage in the production process results in an improvement of the reaction to fire classification (e.g. an addition of fire retardants or a limiting of organic material)

5. Technical details necessary for the implementation of the AVCP system, as provided for in the applicable EAD

In order to help the notified body to make an evaluation of conformity, the Technical Assessment Body issuing the ETA shall supply the information detailed below. This information shall initially be prepared or collected by the Technical Assessment Body and shall be agreed with the manufacturer. The following gives guidance on the type of information required:

1) The ETA

Where confidentiality of information is required, this ETA makes reference to the manufacturer's technical documentation which contains such information.

2) Basic manufacturing process

The basic manufacturing process is described in sufficient details to support the proposed FPC methods.

3) Product and materials specifications

The manufacturer's documentation includes:

- detailed description of the products,
- incoming (raw) materials specifications and declarations,
- references to European and/or international standards,
- technical data sheets of the products.

4) Control Plan (as a part of FPC)

The manufacturer and the Technical and Test Institute for Construction Prague have agreed a Control Plan which is deposited with the Technical and Test Institute for Construction Prague in documentation which accompanies the ETA. The Control Plan specifies the type and frequency of checks/tests conducted during production and on the final product.

It must be demonstrated to the notified body that the FPC system contains elements securing that the manufacturer of the final product use during the manufacturing process only products from his supplier(s) which conform to the Control Plan.

In cases where the provisions of the European Technical Assessment and its Control Plan are no longer fulfilled, the notified body shall withdraw the certificate and inform the Technical and Test Institute for Construction Prague without delay.

Issued in Prague on 29/05/2023

By

Mr. Ing. Jiří Studnička, Ph.D.

The Head of the TAB



Annexes:

***Annex no 1 – Technical schemes & detail drawings of CBG EasyPan 100
(Schemes enclosures)***

List of enclosures of Annex no 1:

- 1.1. The graphic description of the partition panel kit CBG EasyPan 100
- 1.2 The general drawing incl. the front view of the internal partition panel kit CBG EasyPan 100
- 1.3. The scheme of the vertical section of the partition panel kit CBG EasyPan 100
- 1.4. The vertical section of the partition panel kit CBG EasyPan 100 incl. the detail of the mechanical connection of the panels by mounting grooves and tongues.
- 1.5. The horizontal section of the partition panel kit CBG EasyPan 100 incl. the detail of the mechanical connection of the panels by mounting grooves and tongues.
- 1.6. The schematic detail of the partition panel connection to the wall
- 1.7. The schematic detail of the partition panel connection to the door frame
- 1.8. The schematic detail of the panel's L connection with a terminated member in the corner
- 1.9. The schematic detail of the panel's T connection with a running member in the corner
- 1.10. The schematic detail of the partition panel connection to the ceiling
- 1.11. The schematic detail of the partition panel connection to the floor

***Annex no 2 – Detail description of composition of the CBG EasyPan 100
(Table enclosure)***

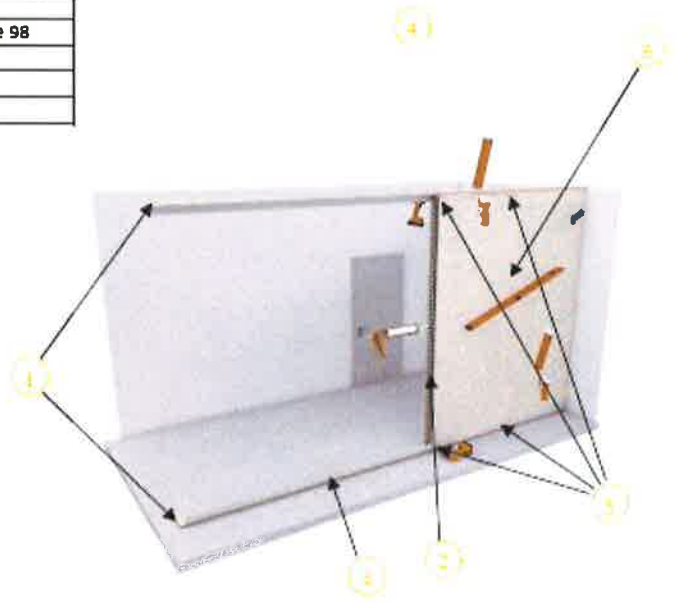
***Annex no 3 – Photodocumentation of the internal partition kit CBG EasyPan 100
(Photos enclosure)***

1.1. The graphic description of the partition panel kit CBG EasyPan 100, i.e. the internal partition wall for fire compartmentation of rooms in buildings.



Graphic description: CBG SeaPan WP 25/G, CBG EasyPan 100, CBG EasyPan 100 Wall

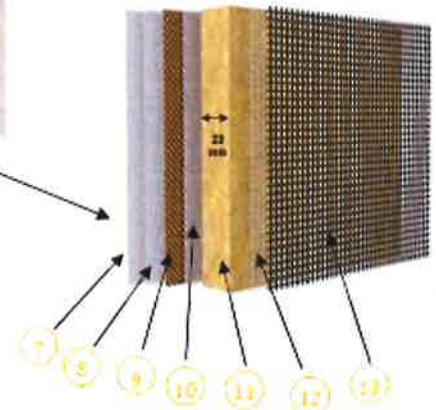
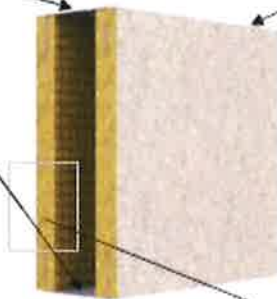
1	CBG Gasket LifeRock MW-180
2	CBG PU 400 glue
3	CBG L-Profile 55, CBG L-Profile 98
4	U-Shaped Profile 28
5	Drywall screws
6	CBG LR Ceramatrix 01-50



CBG U-Profile 75/40/0.6.004

CBG EasyPan-100

CBG SeaPan WP 25/G

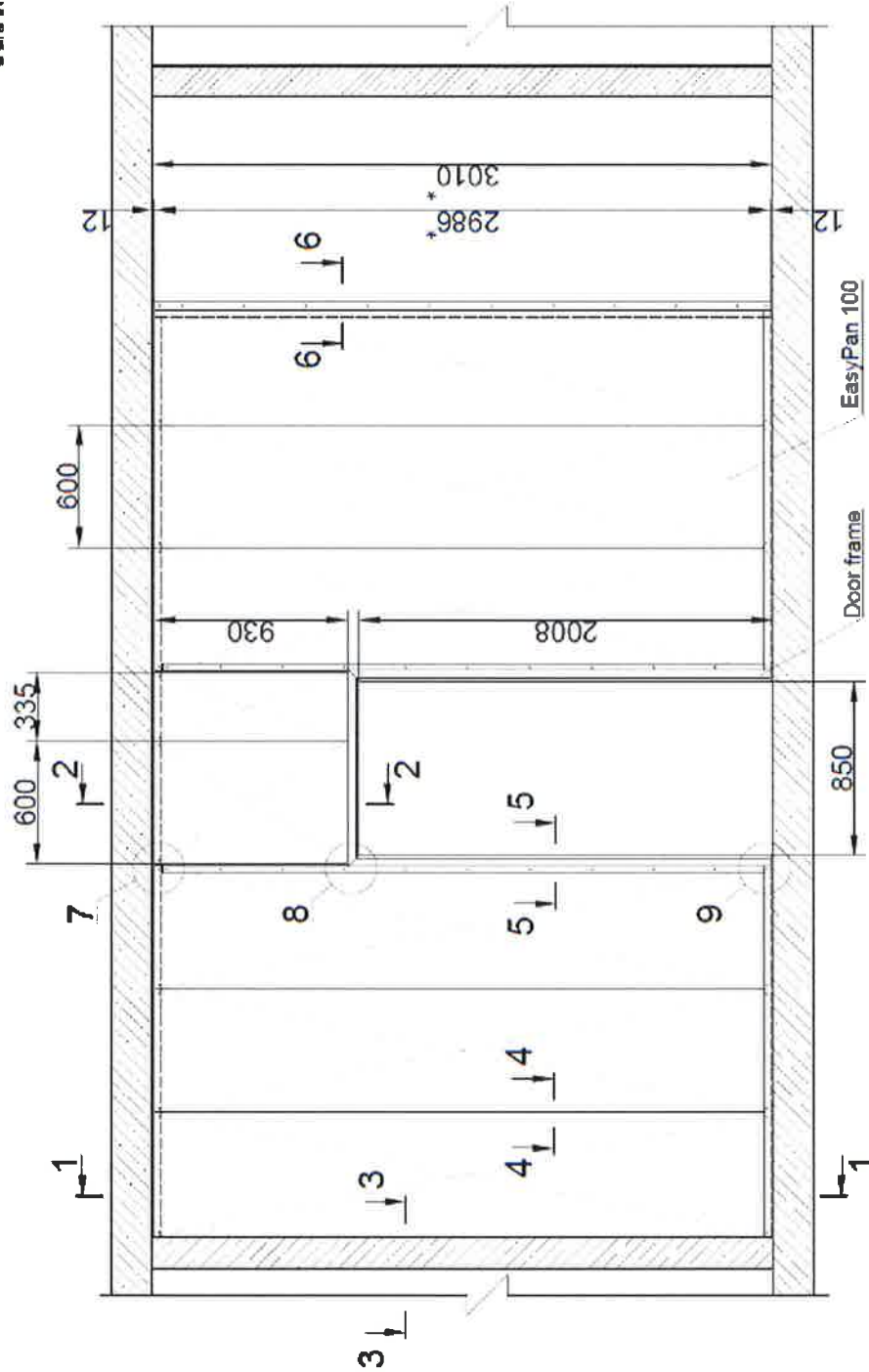


7	CBG TopSkin
8	CBG LR Ceramatrix 01-50
9	CBG Lt8C-480
10	CBG LtGC-300
11	CBG LifeRock MW-180
12	CBG Ceramant 01-50
13	CBG BCR Mesh

1.2 The general drawing incl. the front view of the internal partition panel kit CBG EasyPan 100:



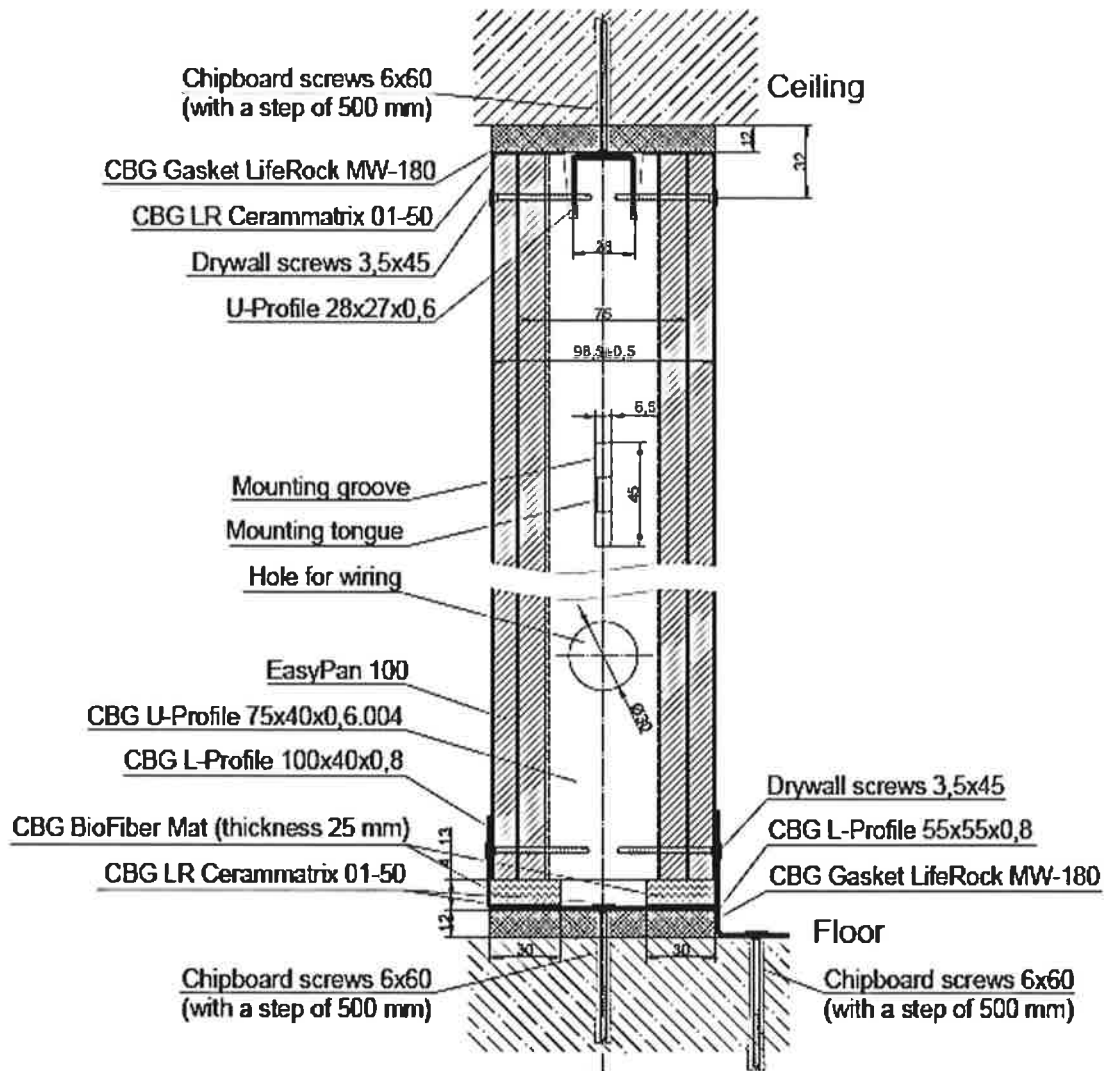
GENERAL DRAWING



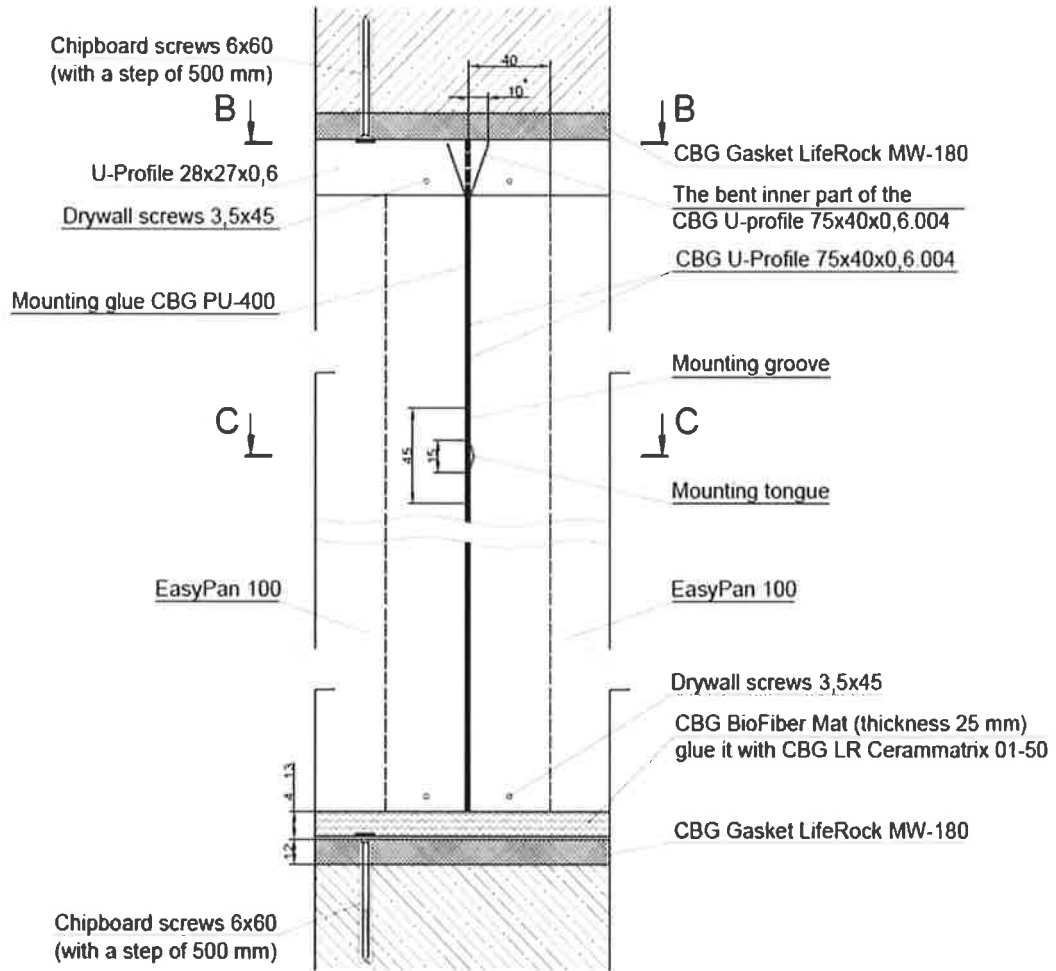
www.cbg-composites.de
 info@cbg-composites.de

CBG Composites GmbH Egerpohl 2 D-51688 Wipperfurth / Germany
 Tel: +49 2267-67-0, Fax: + 49 2267-67-222

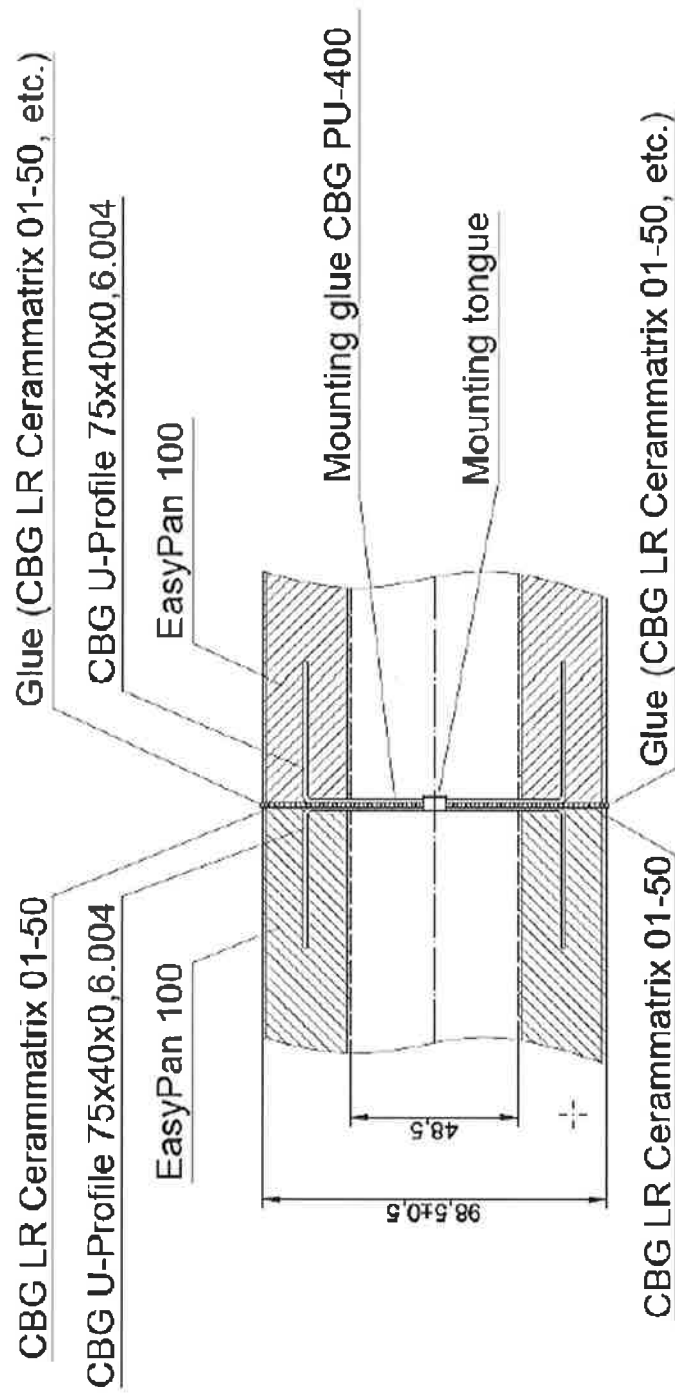
1.3. The scheme of the vertical section of the partition panel kit CBG EasyPan 100:



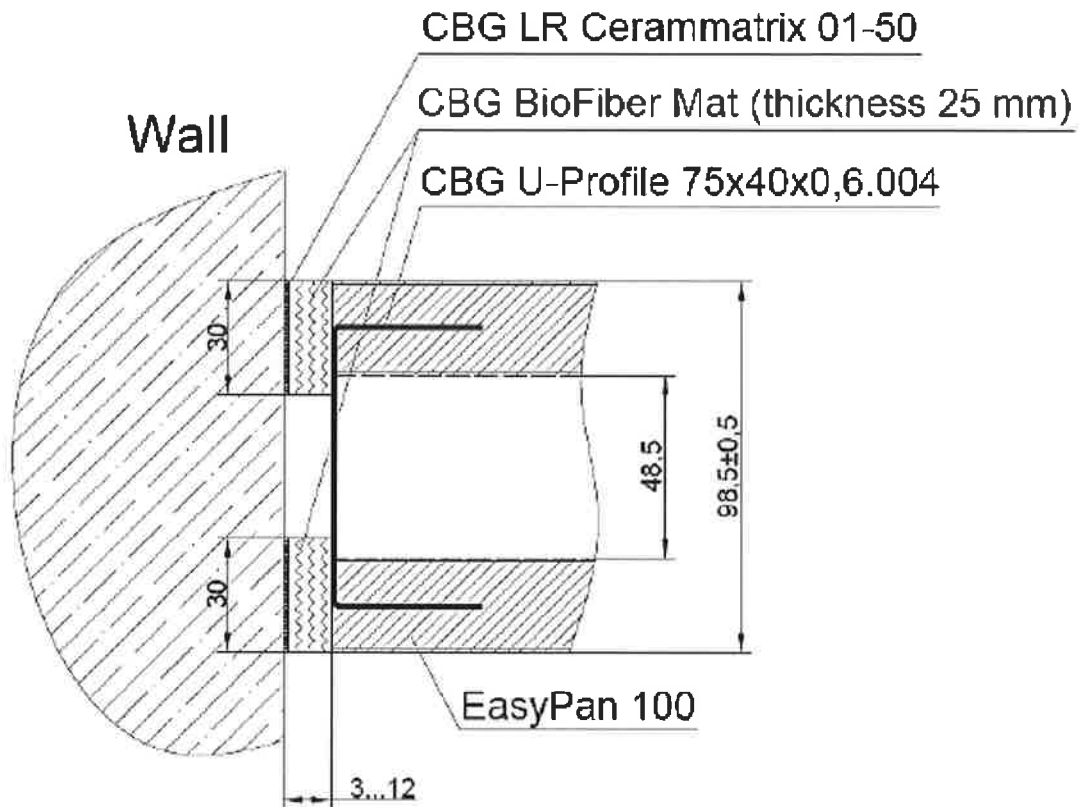
1.4. The vertical section of the partition panel kit CBG EasyPan 100 incl. the detail of the mechanical connection of the panels by the mounting grooves and tongues:



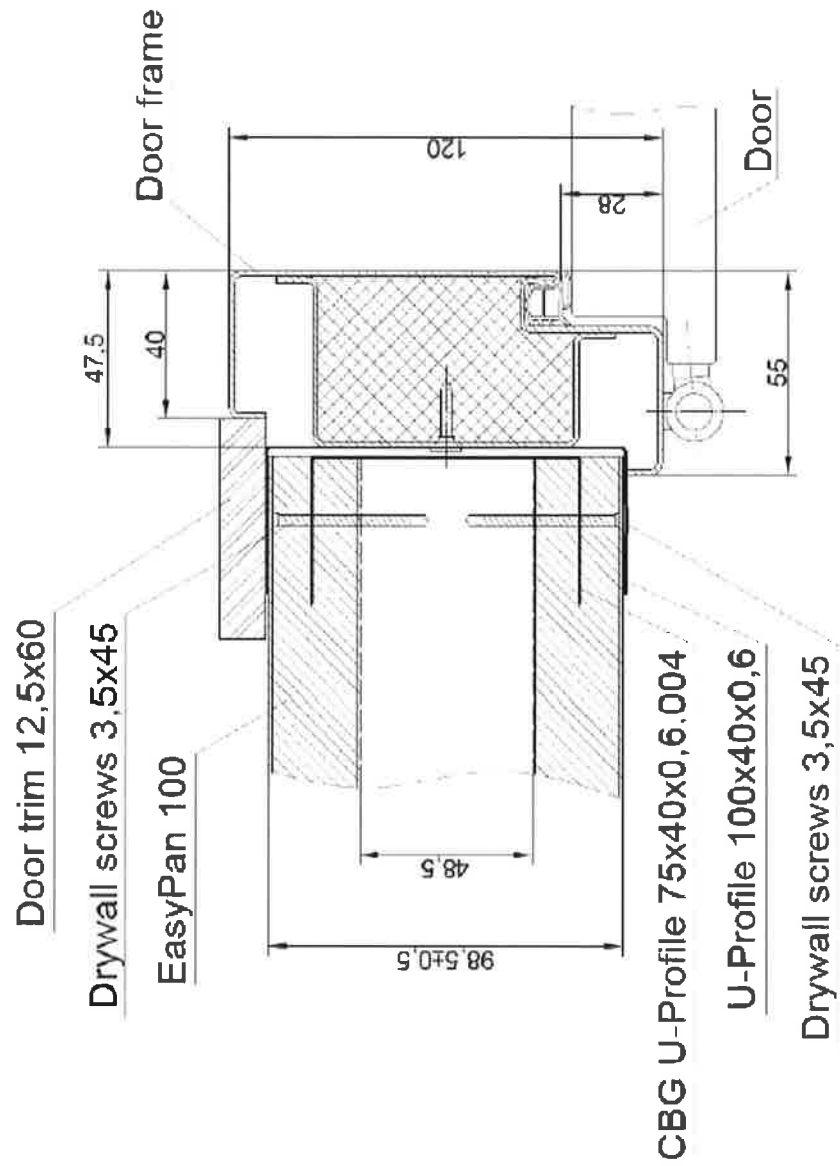
1.5. The horizontal section of the partition panel kit CBG EasyPan 100 incl. the detail of the mechanical connection of the panels by the mounting grooves and tongues:



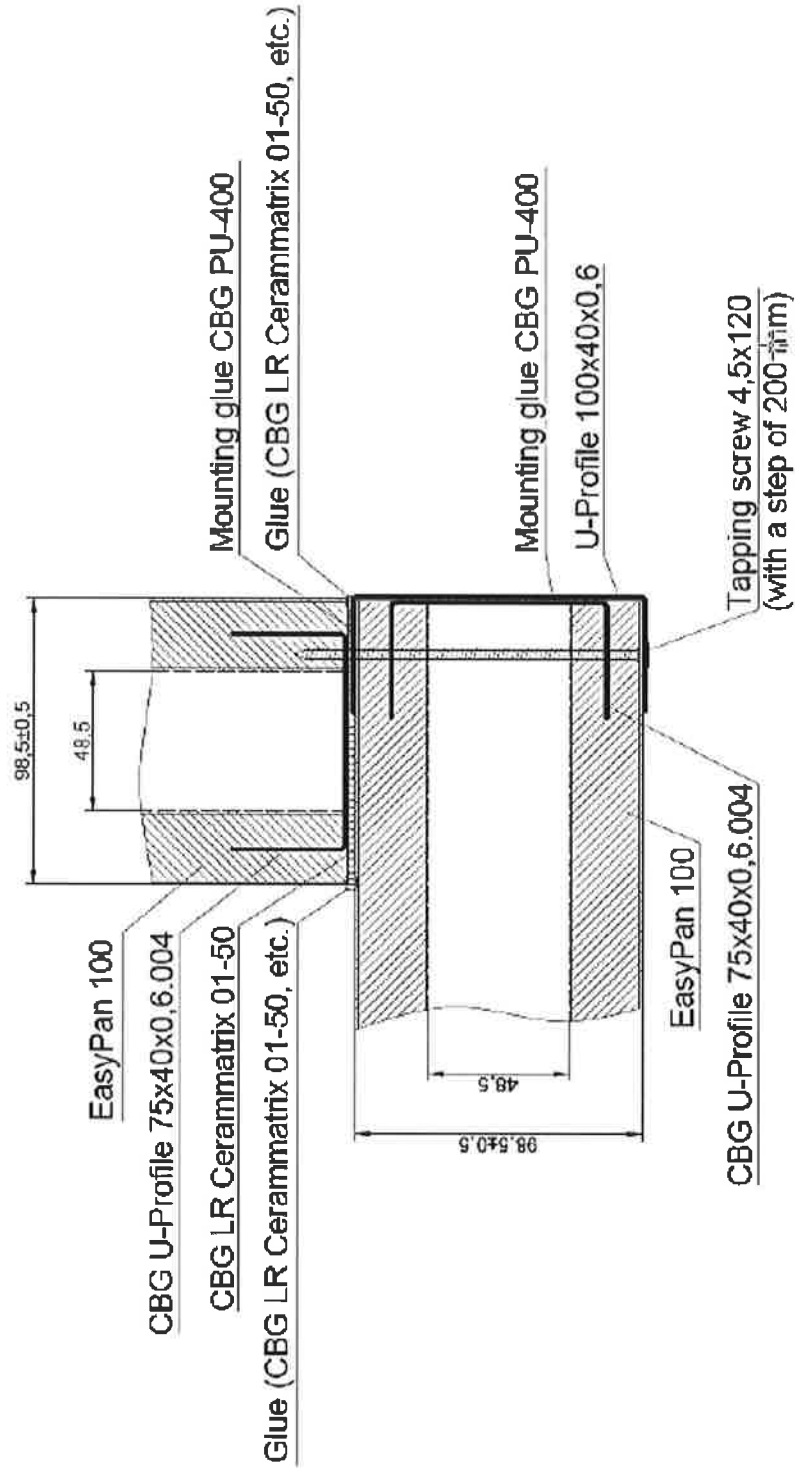
1.6. The schematic detail of the partition panel connection to the wall:



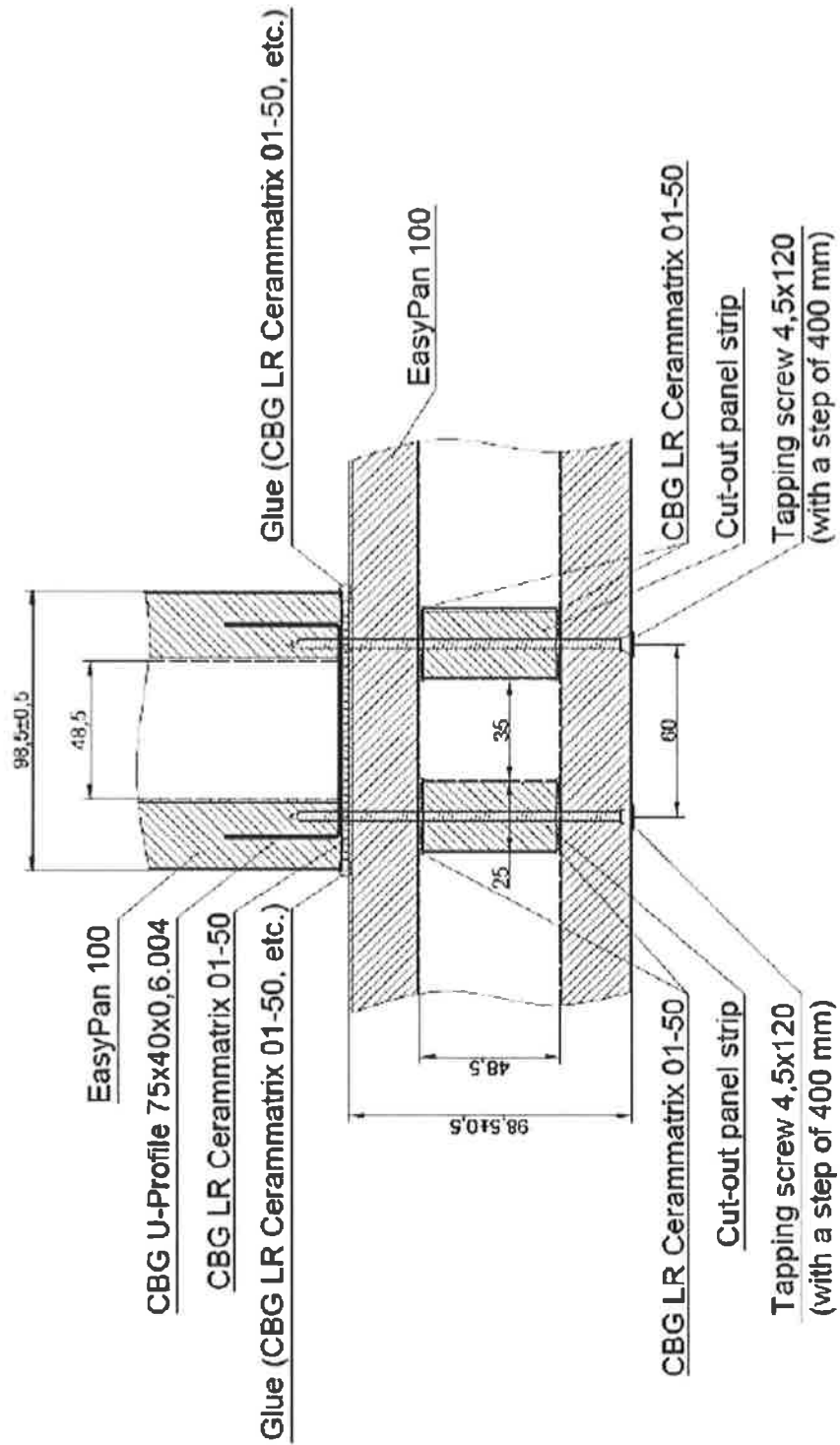
1.7. The schematic detail of partition panel connection the door frame:



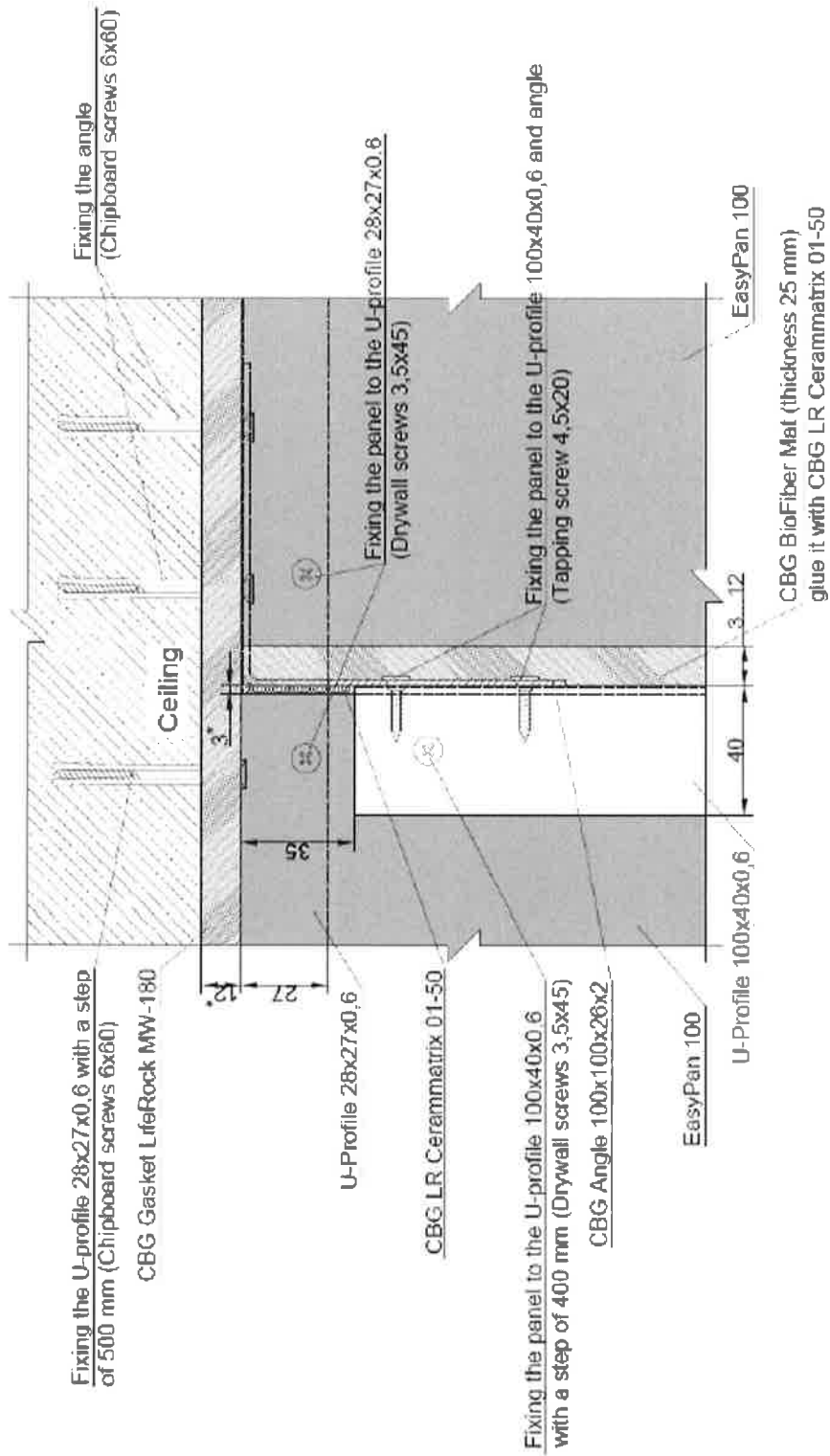
1.8. The schematic detail of the panel's L connection with a terminated member in the corner:



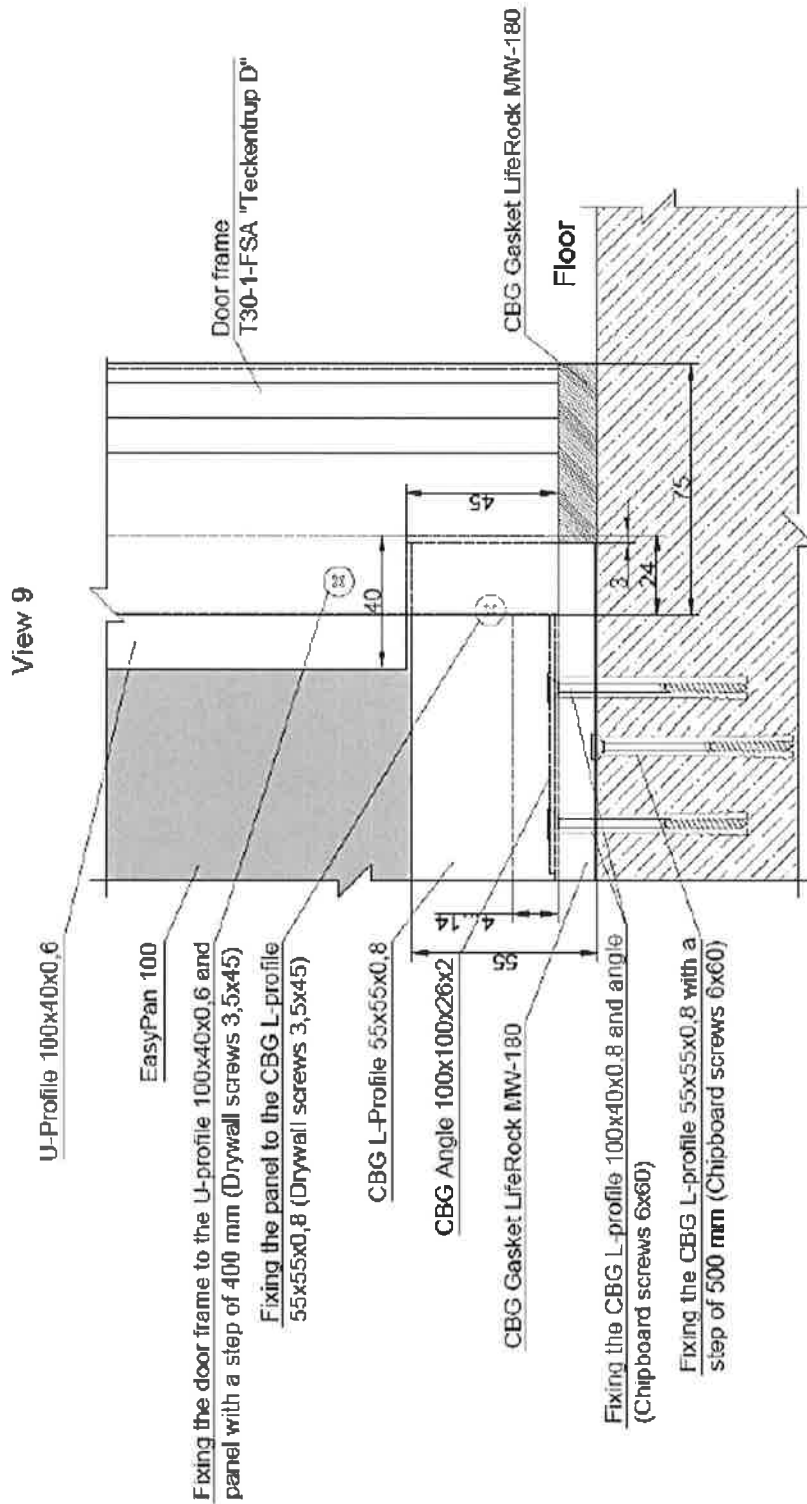
1.9. The schematic detail of the panel's T connection with a running member in the corner:



1.10. The schematic detail of the partition panel connection to the ceiling:



1.11. The schematic detail of the partition panel connection to the floor:



Annex no 2 – Detail description of composition of the CBG EasyPan 100

Table enclosure:

<i>No of element acc. to identification</i>	<i>Trade name of the element (layer) – official name</i>	<i>Description of the function or purpose of element (layer)</i>	<i>Thickness (mm)</i>
1	CBG Gasket LifeRock MW-180	Fire-resistant structural mineral wool core	12
2	CBG PU 400 Glue	One-component polyurethane adhesive	0,1
3	CBG L-Profile 55	Steel floor fixing profile	0,8
4	U-Shaped Profile 28	Steel ceiling fixing profile	0,6
5	Drywall screws and Tapping screws	Drywall screws (3,5x45mm and 6,0x60mm) Tapping screws (4,5x20mm and 4,5x120mm)	Diameter: 3,5mm and 6,0mm 4,5mm
6	CBG LR Ceramatrix 01-50	Fire-resistant adhesive	0,1-0,4
7	CBG TopSkin	Rebar-Ceramic-Glaze non-combustible laminate	0,35 (+ LR Ceramatrix 01-50 - 0,7 mm) = 1,06 mm
9	CBG LtBC-480	Ceramic basalt fiber laminate	0,4
10	CBG LtGC-300	Ceramic glass fiber laminate	0,3
11	CBG LifeRock MW-180	Fire-resistant structural mineral wool core	23
12	CBG Ceramant 01-50	Fire protection adhesive	0,1
13	CBG BCR Mesh	Basalt composite reinforcement mesh	0,5

Note: For detail identification of the elements see Annex no 1, the enclosure 1.1. The graphic description of the partition panel kit CBG EasyPan 100.

Annex no 3 – Photodocumentation of the internal partition kit CBG EasyPan 100

Photos enclosure: The internal partition panel kit CBG EasyPan 100 – the testing sample kit assembled in the testing laboratory of TZUS Praha in the Czech Republic in 11/2022.

