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## Evaluation Report of

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

Technical Assessment Body issuing the ETA: **Technical and Test Institute for Construction Prague**

Trade name of the construction products

**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

Manufacturing plant(s)

<https://www.cbg-composites.de>

**CBG Composites GmbH**

Egerpohl 2,  
516 88 Wipperfürth,  
Germany

This Evaluation Report including 0 Annex contains :

8 pages

## 1 Introduction

This Evaluation Report contains the test results used for assessing of the internal partition panel kit **CBG EasyPan 100** which is made of composite interior panels and mounting accessories designed for fire compartmentation of rooms in buildings and internal non-loadbearing walls in building construction in accordance with the essential requirements as specified in European Assessment Document (EAD) No.: 210005-00-0505 ed 03/2019 (Internal partition kits for use as non-loadbearing walls).

## 2 Available documents

1. European Assessment Document (EAD) No.: 210005-00-0505 (Internal partition kits for use as non-loadbearing walls).
2. ETA application form No. Z010220055
3. Technical data of the product.

## 3 Definition of product and intended use

### 3.1 Definition of product

This Evaluation Report applies to the internal partition kit **CBG EasyPan 100** which is intended for fire compartmentation in buildings and is made of composite interior panels and mounting accessories, i.e. the compact internal partition wall without doors or windows.

#### 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/m<sup>2</sup>, 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/m<sup>2</sup>, impregnated with CBG Ceramatrix 02-50.

CBG Life Rock MW-180, 23 mm thick, mineral wool core with a nominal density of 180 kg/m<sup>3</sup> ± 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 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 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 are placed on the installed CBG L-profile 100x40x0.8 mm. Each panel is secured by a second CBG L-profile 55x55x0.8 with a length of 1000 mm and 2000 mm. The panels are 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/m<sup>3</sup> 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.

Trade name	Front skin	Back skin
<b>CBG Easy Pan 100</b>	CBG TopSkin (Rebar Ceramic-Glaze non-combustible laminate) 1200 g/m <sup>2</sup>	CBG TopSkin (Rebar Ceramic-Glaze non-combustible laminate) 1200 g/m <sup>2</sup>

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.

### 3.2 Intended use

The internal partition kit CBG EasyPan 100 is intended for fire compartmentation and internal non-structural uses in building construction.

The use is intended to exposures corresponding to the use 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.

and the area categories as specified in Eurocode 1 (EN 1991-1-1):

C1-C4

D1-D2

The Evaluation report 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.

### 3.3 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 products are 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 in relation to the expected economically reasonable working life of the construction works.

#### **4 Summary of the test results and evaluations**

Table No. 1: Summary of the test results and evaluations

No	Essential characteristic and method of verification and assessment	Expression of product performance		Test/Classification Report
<b>Basic Works Requirement 2: Safety in case of fire</b>				
1	Reaction to fire (Cl.2.2.1 of EAD 210005-00-0505)	Class A2 – s1, d0		PK1-01-23-008-E-0
2	Resistance to fire (Cl.2.2.2 of EAD 210005-00-0505)	E 120 / EI 120 / EW 120 E90* / 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>		PK2-05-23-001-E-0 PK2-05-23-002-E-0
<b>Basic Works Requirement 3: Hygiene, health and the environment</b>				
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		-
<b>Basic Works Requirement 4: Safety and accessibility in use</b>				
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 2.2.6.1 Soft body impacts (bag 50kg): 1 x 200 J, 1 x 300 J, 1 x 400 J (No damage).  2.2.6.2 Hard body impacts (steel ball 0,5kg): (10 x 2,5 J, 10 x 6,0 J (No damage).  2.2.6.3 Hard body impacts (steel ball 1,0kg): 10 x 10,0 J (No damage).	010-046236
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 $q_{res, 40mm} = 1,929 \text{ KN/m} > 1,500 \text{ KN/m}$	010-046236
	Area category as specified in Eurocode 1 EN 1991-1-1	C1-C4, D1-D2	$q_{res, 40mm} = 1,929 \text{ KN/m} > 1,500 \text{ KN/m}$	

No	Essential characteristic and method of verification and assessment	Expression of product performance	Test/Classification Report
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 2.2.10 Soft body impacts (soft bag 50kg): 3 x 120 J, 1 x 240 J (No damage) (Maximal permanent deflexion 1 mm).	010-046236
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	
<b>Basic Works Requirement 5: Protection against noise</b>			
13	Airborne sound insulation (Cl.2.2.13 of EAD 210005-00-0505)	$R_w = 39,3 \text{ dB}$ (-2,0; -6,0)	040-072639
14	Sound absorption (Cl.2.2.14 of EAD 210005-00-0505)	Class E $\alpha_w = 0,15 \text{ (LH)}$ low absorbent	040-072638
<b>Basic Works Requirement 6: Energy, economy and heat retention</b>			
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	

## 5 Conclusions

The internal non-loadbearing partition kit CBG EasyPan 100 made from composite interior panels and mounting accessories and designed for internal fire compartmentation of rooms and non-structural uses in building construction has been tested, evaluated and assessed in accordance with the essential requirements as specified in European Assessment Document (EAD) No.: 210005-00-0505 ed 03/2019 (Internal partition kits for use as non-loadbearing walls).

## 6 Annexes

No annexes

## 7 List of available reports

- a) Classification report of reaction to fire no **PK1-01-23-008-E-0** prepared by PAVUS a.s., date of issue 28.2.2023. The object of classification was the interior wall partition CBG EasyPan 100 in accordance to EN 13501-1:2018, cl. 11
- b) Classification report of fire resistance no **PK2-05-23-001-E-0** prepared by PAVUS, a.s., date of issue 17.01.2023. Fire resistance classification E 120 / EI 120 / EW 120. Subject of classification product CBG EasyPan 100 as non-loadbearing walls with fire separating function according to ČSN EN 13501-2:2017, cl. 7.5.2.
- c) Classification report of fire resistance no **PK2-05-23-002-E-0** prepared by PAVUS, a.s., date of issue 17.01.2023. Fire resistance classification E 90\* / EI 90\* / EW 90\*. Subject of classification product CBG EasyPan 100 as non-loadbearing walls with fire separating function according to ČSN EN 13501-2:2017, cl. 7.5.2.

*\* At the customer's request, the fire resistance of 90 minutes is indicated here too.*

- d) Report no **010-046236** on Test of mechanical resistance, date of issue 12.12.2022, TZÚS Praha, s.p., Central laboratory – testing department Praha, Testing laboratory No. 1018.3.
- e) Report no **040-072638** on Determination of sound absorption according to EN ISO 354:2003, date of issue 11.10.2022, TZÚS Praha, s.p., Central laboratory-testing department Teplice, Testing laboratory No. 1018.3.
- f) Report no **040-072639** on Determination of airborne sound insulation according to EN ISO 10140-2:2022, date of issue 11.10.2022, TZÚS Praha, s.p., Central laboratory-testing department Teplice, Testing laboratory No. 1018.3.