

1. Name and commercial name of construction item:

# MARBET (CBM) Warm Mounting Beam with complementary elements.

# 2. Designation of type of construction item

			Set of elements				
Width of element			10 cm		20 cm		
Length of CBM beam			25 cm	70 cm	25 cm	70 cm	
M) with brackets	MARBET (CBM) Warm Mounting Beam with steel bracket		T		-		
			CBM.10.25.W	CBM.10.70.W	CBM.20.25.W	CBM.20.70.W	
MARBET (CB	MARBET (CBM) Warm Mounting Beam with steel bracket		T	R	T	R	
			CBM.20.70.Z	CBM.10.70.Z	CBM.20.25.Z	CBM.20.70.Z	
	MARBET (CBM) Warm Mounting Beam without steel bracket						
			CBM.10.25	CBM.10.70	CBM.20.25	CBM.20.70	
Elements that complement the CBM system	Under-sill beam	(BP)					
		(BP.HARD)					
	Inner window sill base (PPW)					PPW	
	Outer window sill base (PPZ)					PPZ	
	Nib (W)					w	



#### 3. Intended use or application:

MARBET (CBM) Warm Mounting Beam with complementary elements are intended for the construction of thermoinsulating mounting frames for windows and balcony doors beyond the interior face of the wall, i.e. in the insulation layer of the building. The Warm Mounting Beam (CBM) may be used with windows or balcony doors made from PVC, wooden or aluminium elements.

The number and placement of fasteners must be in accordance with the installation guidelines of the manufacturer of the fenestration joinery. The selection of a given type of Warm Mounting Beam (CBM) with inner steel brackets or outer steel brackets as well as the selection of the number of mechanical fasteners must ensure transfer of applied loads from the windows of balcony doors. The calculated load capacities of the MARBET (CBM) Warm Mounting Beam steel brackets mounted using mechanical fasteners is presented in Table 2.

Control of the correctness of the selection of number and placement of mechanical fasteners for a given type of CBM bean and given substrate (wall) should be conducted based on static diagrams (Fig. 2) and the description of the system and installation guidelines available at <u>www.marbetbausvstem.com</u>

4. Name and address of registered offices of manufacturer and place of production of the item:

# MARBET Sp. z o.o. ul. Chochołowska 28 43-346 Bielsko-Biała

5. Name and address of authorised representative, if such exists:

#### Does not apply

6. National system used in the assessment and verification of the stability of performance properties:

3

7. National technical specification:

7a. Polish goods norm: Does not apply

Name of accredited certification unit, accreditation number and national certification number or name of accredited laboratory/laboratories and accreditation number:

#### Does not apply

7b. National technical assessment:

### NATIONAL TECHNICAL ASSESSMENT ITB-KOT-2018/0410 1st edition from 26.03.2018

Technical assessment unit/ National technical assessment unit:

**ITB Building Research Institute,** Warsaw ul. Filtrowa 1, Name of accredited certification unit, accreditation number and certification number:



dated 21.05.2018

# Does not apply

# 8. Declared performance properties:

Basic characteristics of construction material for its intended application or uses	Performance properties	Notes	
Density of styrofoam (EPS), [kg/m <sup>3</sup> ]:			
- Under-sill beam BP.HARD	≥60		
other elements	≥40		
Compressive stress at 10% relative deformation, [kPa]:			
- Under-sill beam BP.HARD	≥ 600 (CS(10)600)		
other elements	≥ 300 (CS(10)300)		
Declared value of thermal conductivity coefficient $\lambda_D$ , at a temperature			
of 10°C, [W/m·K]:	0.034		
- Under-sill beam BP.HARD	0.032		
other elements			
Classification of reaction to fire of styrofoam elements (EPS)	E		
Durability – thickness of anti-corrosion coating of steel brackets, $[\mu m]$	≥ 20		
Calculated load capacity for pull and shear forces, $N_{Rd}$ and $V_{Rd}$ , of steel bracket frame plugs , $[kN]^{\ 1)}$	according to Table 2		
<sup>1)</sup> tests conducted with mechanical fasteners KPR-FAST compliant with European Technical Assessment ETA-12/0272			

Item	Type of CBM element	Calculated load capacity for fastening with at least two mechanical fasteners in the lower element of the frame, N <sub>Rd</sub> = V <sub>Rd</sub> ,[kN]	Calculated load capacity for fastening with at least one mechanical fastener in the upper and side element of the frame N <sub>Rd</sub> = V <sub>Rd</sub> ,[kN]
1	CBM.10.25.W <sup>1)</sup>	1/5	0.8
2	CBM.10.70.W <sup>1)</sup>	1/5	0.8
3	CBM.20.25.W <sup>1)</sup>	1/5	0.6
4	CBM.20.70.W <sup>1)</sup>	1/5	0.6
5	CBM.10.25.Z	1.5 <sup>2)</sup>	0.8
6	CBM.10.70.Z	1.5 <sup>2)</sup>	0.8
7	CBM.20.25.Z	1.0 <sup>3)</sup>	0.6
8	CBM.20.70.Z	1.0 <sup>3)</sup>	0.6

<sup>1)</sup> In the elements CBM.10.25.W, CBM.10.70.W, CBM.20.25.W, CBM.20.70.W one mechanical fastener must be situated in the plane of the jamb

<sup>2)</sup> one mechanical fastener must be situated in the upper part of the steel bracket

<sup>3)</sup> two mechanical brackets must be situated in the upper part of the steel bracket



Fig.1. Diagram of placement of mechanical fasteners in steel brackets (according to Table 2).



# NATIONAL DECLARATION OF PERFORMANCE PROPERTIES

dated 21.05.2018



**Fig. 2.** Static diagrams – indication of load capacity of fastenings of the steel brackets in the jamb (according to Table 2).

9. The performance properties indicated above are in compliance with all performance declared in point 8. This declaration of performance properties has been issued in accordance with the Law dated 16 April 2004 on Construction Items at the sole liability of the manufacturer.

Signed on behalf of the manufacturer by:

