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European Technical Assessment

**ETA 19/0435
of 21/07/2019**

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

Trade name of the construction product STAVBLOX

Product family to which the construction product belongs 34: BUILDING KITS, UNITS, AND PREFABRICATED ELEMENTS

Manufacturer

STAVSI, s.r.o.
Boudova 590,
Praha 5 – Lipence,
15531, Czech Republic

Manufacturing plant(s)

STAVSI, s.r.o.
Boudova 590,
Praha 5 – Lipence,
15531, Czech Republic

This European Technical Assessment contains

4 pages and 0 pages of annexes

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

EAD 340297-00-0203: Dry masonry construction system with vertical elements

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1. Technical description of the product

STAVBLOX is dry masonry construction system with vertical elements.

For purposes of this ETA, dry masonry construction system with vertical elements is abbreviated as DMCS.

DMCS consists of elements used for vertical supporting and non-supporting structures: masonry units for vertical supporting structures and masonry units for vertical non-supporting structures.

Mutual bonding of masonry units is provided by four types of connecting elements. First type is made of rubber and is reinforced with steel rod. Second type is made of timber. Third type is made of reinforced concrete. Steel profiles are used as fourth type of connecting element.

Mutual connection of masonry units is established only in vertical direction by the connecting elements. All four types of connecting elements can be used for inner connection between masonry units. All four types, except the rubber type, of connecting elements can be used for connection between masonry units on the face of the masonry units.

The masonry units are made of porous aggregate concrete.

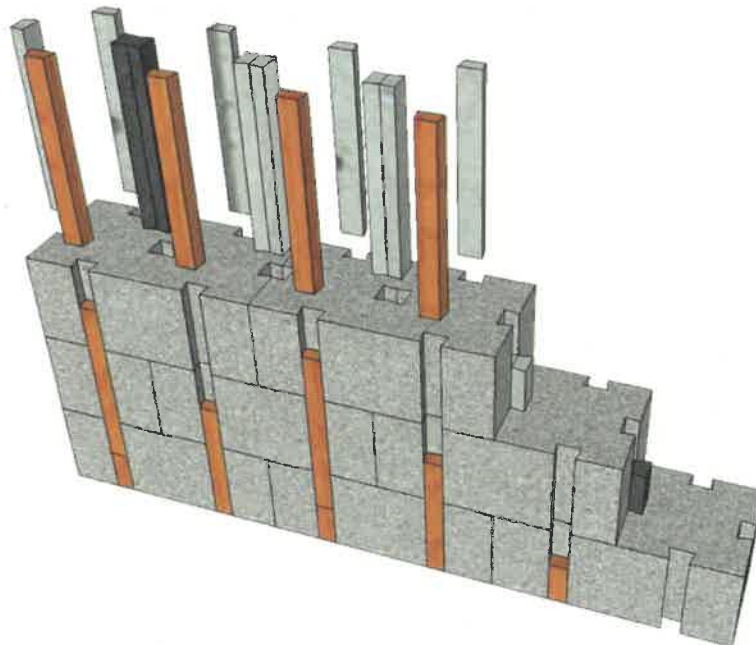


Figure 1 – General scheme of STAVBLOX

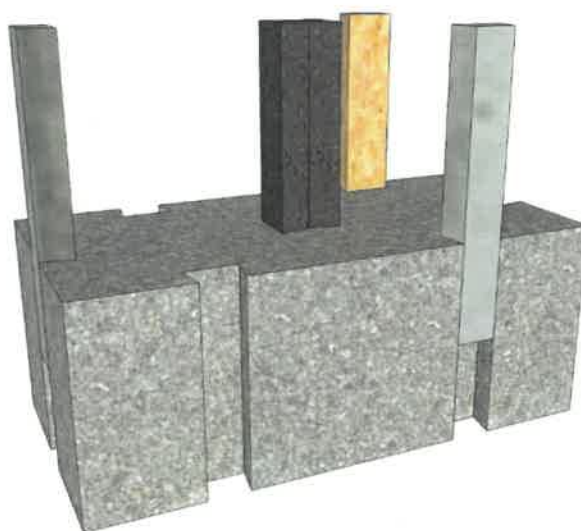


Figure 2 – Scheme of the masonry unit with vertical elements

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

DMCS is intended for use in supporting structures up to 5 floors and in non-supporting structures in buildings for residential, administrative, social use etc. Build-up is not limited with actual weather. In place with higher moisture, it is recommended to substitute wooden vertical elements with RC ones.

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

No	Essential characteristic	Assessment method	Expression of product performance
Basic Works Requirement 1: Mechanical resistance and stability			
1	Determination of compressive strength	EAD 340297-00-0203, 2.2.1	$f = 2,4 \text{ MPa}$ $f_y = 2,0 \text{ MPa}$
2	Determination of flexural strength	EAD 340297-00-0203, 2.2.2	A) parallel direction $f_{\text{mean}} = 0,81 \text{ MPa}$ $f_{\text{xk}} = 0,54 \text{ MPa}$ B) perpendicular direction $f_{\text{mean}} = 1,52 \text{ MPa}$ $f_{\text{xk}} = 1,01 \text{ MPa}$
3	Determination of initial shear strength	EAD 340297-00-0203, 2.2.3	$f_{\text{vo}} = 0,45 \text{ MPa}$ $f_{\text{vok}} = 0,36 \text{ MPa}$

No	Essential characteristic	Assessment method	Expression of product performance
Basic Works Requirement 2: Safety in case of fire			
4	Resistance to fire	EAD 340297-00-0203, 2.2.4	REI 180 (i↔o) / REW 180 (i↔o)
5	Reaction to fire	EAD 340297-00-0203, 2.2.5	NPD
Basic Works Requirement 5: Protection against noise			
6	Airborne sound insulation	EAD 340297-00-0203, 2.2.6	R_w (C;C_{tr}) = 42 (-1;-5) dB
Basic Works Requirement 6: Energy economy and heat retention			
7	Determination of thermal properties	EAD 340297-00-0203, 2.2.7	λ_{design,mas} = 0,31 W.m⁻¹.K⁻¹

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

According to the decision 97/740/ES the European Commission, the system of assessment and verification of constancy of performance (see Annex V to Regulation (EU) No 305/2011) is 2+.

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

Technical details necessary for the implementation of the AVCP system are laid down in in the control plan deposited by the Technical Assessment Body - Technical and Test Institute for Construction Prague.

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 By
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