



CPC BELGELENDİRME MUAYENE VE DENEY  
HİZMETLERİ TİC. LTD. ŞTİ.  
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## European Technical Assessment

**ETA-21/0057**  
of 24.12.2021

### General Part

**Technical Assessment Body issuing the European Technical Assessment:**  
CPC Belgelendirme Muayene ve Deney Hizmetleri Tic. Ltd. Şti.

**Trade name of the construction product**

EPSBlock

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

Concrete Masonry Units with EPS

**Manufacturer**

EPSBLOCK YAPI A.Ş.

**Manufacturing plant(s)**

Zeytinli Mah. 94030 Sok. Asran Tarım 9/A1 Seyhan

**This European Technical Assessment contains**

4 pages including 3 Annex(es) 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 170019-00-0305, Concrete masonry units with Eps

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## **1. Technical description of the product**

The construction product is a regular shaped with no holes concrete masonry unit obtained by pouring the concrete and small sphere-like EPS together in molds and removing it from the mold after curing and shaping. The product units are rectangular prism without any holes.

The product dimensions are: 600 mm\*95 mm\*300 mm (95), 600 mm\*145 mm\*300 mm (145), 600 mm\*172 mm\*300 mm (172) and 600 mm\*195 mm\*300 mm (195)

Concerning product packaging, transport, storage, maintenance, replacement and repair it is the responsibility of the manufacturer to undertake the appropriate measures and to advise their clients on the transport, storage, maintenance, replacement and repair of the product as they consider necessary.

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

The product's intended uses are facing or exposed masonry in building and civil engineering applications. The product is suitable for all forms of walling, including single leaf, external leaf to chimneys, cavity wall, partitions, retaining, and basement. The product provides fire protection, thermal insulation, sound insulation and sound absorption at the same time. The product is squeezed but not cracked under load. This causes to a reduction in the volume of the product. Therefore it cannot be used as load-bearing element. The assessment methods included or referred to in this EAD have been written based on the manufacturer's request to take into account a working life of the Concrete Masonry Unit with EPS for the intended use of 50 years when installed in the works (provided that the Concrete Masonry Unit with EPS is subject to appropriate installation).

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

Table 1 Essential characteristics of the product and methods and criteria for assessing the performance of the product in relation to those essential characteristics

No	Essential characteristic		Assessment method	Type of expression of product performance			
				95	145	172	195
<b>Basic Works Requirement 1: Mechanical resistance and stability</b>							
1	Dimensions and tolerances	Length(mm)	2.2.1	597,2	598,8	598,8	597,8
		Tolerance Category		D1	D1	D1	D1
		Height(mm)		296,3	296,5	295,7	295,8
		Tolerance Category		D1	D1	D1	D1
		Width(mm)		97,3	146,8	173,2	196,7
		Tolerance Category		D1	D1	D1	D1
2	Configuration and appearance		2.2.2	NPA	NPA	NPA	NPA
3	Density(kg/m <sup>3</sup> )		2.2.3	406	382	406	378
4	Compressive strength(N/mm <sup>2</sup> )		2.2.4	1,1	1,1	1,1	1,0
5	Bending tensile strength		2.2.5	NPA	NPA	NPA	NPA
6	Shear bond strength (N/mm <sup>2</sup> )		2.2.6	NPA	NPA	NPA	NPA
7	Flexural bond strength		2.2.7	NPA	NPA	NPA	NPA
<b>Basic Works Requirement 2: Safety in case of fire</b>							
8	Reaction to fire		2.2.8	A1			
<b>Basic Works Requirement 5: Protection against noise</b>							
9	Airborne sound insulation (dB)		2.2.9	16,9(-1;-2)	19(0;-2)	23,3(0;-2)	17,8(-1;-3)
<b>Basic Works Requirement 6: Energy economy and heat retention</b>							
10	Thermal properties[W/(m*K)]		2.2.10	0,089	0,087	0,084	0,080
11	Water absorption [g/(m <sup>2</sup> *s <sup>0,5</sup> )]		2.2.11	18	17	17	18
12	Moisture movement (mm/m)		2.2.12	NPA	NPA	NPA	NPA
13	Water vapour permeability (μ)		2.2.13	8,73	8,56	8,44	8,64
<b>Aspects of durability</b>							
14	Freeze-thaw resistance		2.2.14	NPA	NPA	NPA	NPA

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

##### 4.1 System(s) of assessment and verification of constancy of performance to be applied

For the products covered by this EAD the applicable European legal act is: Decision 305/2011 (EU) amended by 568/2014 (EU): The system is 4.

##### 4.2 Tasks of the manufacturer

The cornerstones of the actions to be undertaken by the manufacturer of the product in the procedure of assessment and verification of constancy of performance are laid down in Table 2.

**Table 2 Control plan for the manufacturer; cornerstones**

No	Subject/type of control	Test or control method	Criteria, if any	Minimum number of samples	Minimum frequency of control
<b>Factory production control (FPC)</b> [including testing of samples taken at the factory in accordance with a prescribed test plan]					
1	Dimensions and tolerances	2.2.1	Level	6	Every 30 000 units
2	Density (Unit and EPS)	2.2.3	Level	6	Every 30 000 units
3	Thermal properties	2.2.10	Level	1	Once a year
4	Water absorption	2.2.11	Level	1	Once a year

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By

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General Manager

#### Annexes

1. Manufacturer's 25.10.2021 dated test report
2. Headship of TSE Test and Calibration Center Construction Materials Fire and Acoustics Laboratory AB-0001-T - Report no: 341115/ 05-17
3. Manufacturer's technical document.

