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Authorised and notified according to Article 29 of the Regulation (EU) No 305/2011 of the European Parliament and of the Council of 9 March 2011

European Technical Assessment ETA-21/0774 of 2021/08/25

I General Part

Technical Assessment Body issuing the ETA and designated according to Article 29 of the Regulation (EU) No 305/2011: ETA-Danmark A/S	
Trade name of the construction product:	Genbrugssten Re-used bricks
Product family to which the above construction product belongs:	Recycled clay masonry units
Manufacturer:	Genbrugssten ApS Agdrupvej 3 DK-9700 Brønderslev Tel +45 69 16 03 77 Internet www.genbrugssten.dk
Manufacturing plant:	Genbrugssten ApS Agdrupvej 3 DK-9700 Brønderslev
This European Technical Assessment contains:	6 pages including 1 annex which form an integral part of the document
This European Technical Assessment is issued in accordance with Regulation (EU) No 305/2011, on the basis of:	European Assessment Document (EAD) no. EAD 170005-00-0305 for Recycled clay masonry units
This version replaces:	

II SPECIFIC PART OF THE EUROPEAN TECHNICAL ASSESSMENT

1 Technical description of product and intended use

Technical description of the product
Genbrugssten Re-used bricks are recycled clay masonry units, which are derived from de-installation of clay masonry buildings. The masonry units are brought to the manufacturing plant where they are mechanically cleaned, sorted, controlled and packed.

2 Specification of the intended use in accordance with the applicable EAD

The recycled clay masonry units are used for protected or unprotected masonry structure (see definitions 3.3 and 3.4 of EN 771-1) e.g. facing and rendered masonry in self-supporting load transferring masonry structures, including external veneer walls, internal linings and partitions.

The installed clay masonry units will contribute to durability of the works by providing enhanced protection from the effect of weathering.

The provisions made in this European technical assessment are based on an assumed working life of the shuttering kit of at least 50 years.

The indications given on the working life cannot be interpreted as a guarantee given by the producer or Assessment Body, but are to be regarded only as a means for choosing the right products in relation to the expected economically reasonable working life of the works.

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

Characteristic	Assessment of characteristic
3.2 Safety in case of fire (BWR2)	
Reaction to fire	The Genbrugssten Re-used bricks are classified as **class A1** without testing in accordance with EC Delegated Regulation 2016/364/EU and EN 13501-1
3.3 Hygiene, health and the environment (BWR3)	
Dimensions	The dimensions of the Genbrugssten Re-used bricks are

Type	Length mm	Width mm	Height mm
Genbrugssten Re-used bricks	228	108	55

The tolerance on all dimensions is ± 20 mm corresponding to tolerance category Tm in EN 771-1

Density	The gross dry density of Genbrugssten Re-used bricks is **1650 kg/m3** with **tolerance class Dm (±30%)** in accordance with EN 771-1
Compression strength	See annex A
Initial rate of water absorption	No performance assessed
Bond strength	No performance assessed
Determination of volume and percentage of voids and net volume	No performance assessed

Freeze/thaw resistance

Type	Mean value for the ratio of pore volume by boiling
Genbrugssten Re-used bricks	pf ≤ 0,9

Active soluble salt content	No performance assessed

4 Attestation and verification of constancy of performance (AVCP)

4.1 AVCP system

According to the decision 97/740/EC of the European Commission, the system(s) 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 foreseen in the applicable EAD

Technical details necessary for the implementation of the AVCP system are laid down in the control plan deposited at ETA-Danmark prior to CE marking

Issued in Copenhagen on 2021-08-25 by

Thomas Bruun
Managing Director, ETA-Danmark

Annex A
Compressive strength

The value of the compressive strength as the 50% fractile at a 95 % confidence level with uniform, unknown distribution of the bricks is declared to be

Type	**Declared value, normalized compressive strength, f_b(MPa)**
Genbrugssten Re-used bricks	**15**

The declared value is the normalized value (f_b) for each product type and is fixed based on mean value, sample standard deviation and lowest single value of the sample, so that:

$f_b < f$ and $f_b < x/0,8$

where
x is the lowest single value in the test sample
(f) is the lower 50% fractile calculated in relation to the size and distribution of test samples.

Calculation of the normalized compression strength (f_b) is obtained by multiplication of the measured compression strength by a shape factor (d). The shape factor (d) is determined according to EN 772-1:2011+A1:2015(E).

Within the declared dimensions the shape factor (d) is between 0.7 and 1,30. The exact shape factor is either calculated by interpolation or the value 0,7 is used.

Since variations occur in the manufacturing process, the declared value (f_b) is fixed to ensure that the assessed performance is on the safe side.