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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

MEMBER OF EOTA



European Technical Assessment ETA-20/0913 of 2020/11/30

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:

Tapco Slates

Product family to which the above construction product belongs:

Roofing

Manufacturer:

Tapco Europe Ltd
Unit 32 Tokenspire Business Park
Hull Road
Woodmansey
East Yorkshire HU16 0TB
United Kingdom

Manufacturing plant:

Tapco Group Inc Metamora Facility
4057 South Oak Street
Metamora
Michigan 48455
USA

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. European Assessment Document 22006-00-0402 for Roofing slates made of polypropylene, limestone and fillers

This version replaces:

Translations of this European Technical Assessment in other languages shall fully correspond to the original issued document and should be identified as such.

Communication of this European Technical Assessment, including transmission by electronic means, shall be in full [except the confidential Annex(es) referred to above]. However, partial reproduction may be made with the written consent of the issuing Technical Assessment Body. Any partial reproduction has to be identified as such.

1 Technical description of the product

Tapco Slates are compression-moulded slates made from a blend of recyclable polypropylene, limestone, fillers (including fire retardants) and pigments. Ridge-caps made to the same formulation are also available for use with the slates.

The slates have the nominal characteristics of:

Dimensions (mm)	445 x 305
Nominal thickness (mm)	top edge 7, bottom edge 3.5
Average density ($\text{kg}\cdot\text{cm}^{-3}$)	1.32
Installed weight ($\text{kg}\cdot\text{m}^{-2}$)	13.5
Colours	Stone Black, Pewter Grey, Plum, Brick Red, Chestnut Brown, Mist Grey, Brandywine, Red Rock, Olive, Sage Green, Grey/Black blend, Evergreen, Ash Grey, Granite and Graphite.
Finishes	Six embossed pattern finishes are available.

Slight colour variations may exist between batches and the product should be randomised on site to achieve a consistent appearance when installed.

The slates are marked with blind holes for installation.

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

The slates are for use as a weatherproof finish to pitched roofs. The image below shows the product installed on a pitched roof.



The provisions made in this European Technical Assessment are based on an assumed working life for the roof of 25 years. The indications given in the working life cannot be interpreted as a guarantee given by the producer or the Technical 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

3.1 Mechanical resistance and stability (BWR 1)

Characteristic	Category
Bending moment	See Annex A

3.2 Safety in case of fire (BWR 2)

Characteristic	Category
External fire performance	Classified to EN 13501-5 : 2005 + A1 : 2009 See Annex A

3.3 Health, hygiene and the environment (BWR 3)

The manufacturer has made a declaration that the product does not contain any dangerous substances.

3.4 Safety and accessibility in use (BWR 4)

Characteristic	Category
Dimensions	See Annex A
Density	See Annex A
Water absorption	See Annex A
Dimensional stability	See Annex A
Warm water immersion at ambient temperature	See Annex A
Warm water immersion at elevated temperature	See Annex A
Dry heat at elevated temperatures	See Annex A
Freeze/thaw cycling	See Annex A
UV exposure	See Annex A
Heat-rain cycling	See Annex A

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

According to the Decision 1998/436/EC⁽¹⁾ and amended by Decision 2001/596/EC⁽²⁾ of 8 January 2001⁽²⁾ of the European Commission, the system of assessment and verification of constancy of performance [see Annex V to Regulation (EU) No 305/2011] is as follows:

Product	Intended use	Level or class	System
Roofing	As roof coverings subject to external fire performance regulations	See EN 13501-5	3
		F _{ROOF}	4
Slates	As roof coverings subject to regulations on dangerous substances	–	3
	As roof coverings for all other uses	–	4

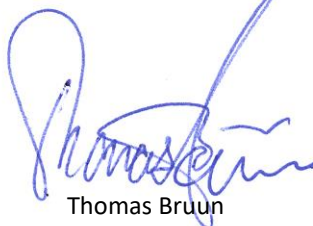
(1) Official Journal of the European Communities L194 of 10 July 1998.

(2) Official Journal of the European Communities L209 of 2 August 2001.

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 Assessment and Verification of Constancy of Performance (AVCP) are laid down in the control document deposited at ETA-Danmark A/S.

Issued in Copenhagen on 2020-11-30 by



Thomas Bruun

Managing Director, ETA-Danmark

ANNEX A CATEGORISATION OF LEVELS OF PERFORMANCE OF TAPCO SLATES

This annex applies to the Tapco Slates described in the main body of the European Technical Assessment.

The product has the following characteristics as derived from results of tests:

- Dimensions – length 444 mm, width 292 mm and thickness 3.7 mm
- Density – $1.32 \text{ kg}\cdot\text{cm}^{-3}$
- Water absorption – 1.32%
- Dimensional change – +0.02 (longitudinal direction) and +0.01 (transverse direction)
- Bending moment – $96 \text{ Nm}\cdot\text{m}^{-1}$
- Bending moment after 28 days warm water immersion at ambient temperature – $98 \text{ Nm}\cdot\text{m}^{-1}$
- Bending moment after 56 days warm water immersion at ambient temperature – $93 \text{ Nm}\cdot\text{m}^{-1}$
- Bending moment after 28 days warm water immersion at elevated temperature – $104 \text{ Nm}\cdot\text{m}^{-1}$
- Bending moment after 56 days warm water immersion at elevated temperature – $94 \text{ Nm}\cdot\text{m}^{-1}$
- Bending moment after 28 days exposure to dry heat at elevated temperature – $104 \text{ Nm}\cdot\text{m}^{-1}$
- Bending moment after 56 days exposure to dry heat at elevated temperature – $92 \text{ Nm}\cdot\text{m}^{-1}$
- Bending moment after 100 cycles of freeze/thaw – $94 \text{ Nm}\cdot\text{m}^{-1}$
- Bending moment after 1000 hours UV exposure – $102 \text{ Nm}\cdot\text{m}^{-1}$
- Bending moment after 2000 hours UV exposure – $98 \text{ Nm}\cdot\text{m}^{-1}$
- No visible damage after 25 and 50 cycles of heat/rain.

The product is categorised as having a $B_{\text{ROOF}}(t_4)^{(1)}$ level of external fire performance in accordance with the EAD.

(1) The product achieved this classification under EN 13501-5 : 2005 + A1 : 2009 as part of the following systems:

- Tapco Slates mechanically fixed on 18 mm OSB3 board tested at a slope angle of 45°
- Tapco Slates mechanically fixed on a batten and rafter system with a layer of SBS TU-35 underlay, tested at a slope angle of 45° .