

**THOMAS BELL-WRIGHT
INTERNATIONAL CONSULTANTS**

In accordance with UKAS accreditation to ISO 17065
Certification is Hereby Granted

to

STENI AS

Lågendalsbeien 2633, 3277 Steinsholt, Norway

for

**6-mm thick Steni Stone Composite Panel
(ASTM E84-16, ASTM D1929-16 and EN13501-1:2007+A1:2010)**

which, subject to limitations described on the following pages and continued listing on www.tbwcert.com, complies with Product Certification Scheme *SD03 Exterior Wall Assemblies, Cladding, Curtain Walls, Building Materials, Products and Assemblies*

In witness whereof, this Certificate is issued this 21st day of March 2018

Thomas F. Bell-Wright
Certification Director



Nick Purcell
Certification Manager

Certificate Number: TBW0300255.1

Initial registration: November 16, 2017
File Name: RB095 Steni AS-Reaction to Fire

Issued: March 21, 2018

Expiration: November 15, 2020
Save Date: 21/03/18 11:56 AM

This certificate and schedules are held in force by regular Factory Inspections by Thomas Bell-Wright International Consultants (TBWIC). Refer to www.tbwcert.com or contact TBWIC Fire Compliance Division to validate the current status of Certification. This certificate remains the property of THOMAS BELL-WRIGHT INTERNATIONAL CONSULTANTS, PO BOX 26385, DUBAI, UAE.

Tel: +971 4 333 2692, Email: certification@bell-wright.com. Web: www.bell-wright.com F 19 Scheme Certificate Issue 5. Dec 2016

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6-mm thick Steni Stone Composite Panel

1. Certification is given for 6-mm thick Steni stone composite panel material for Reaction to Fire performance to test standard ASTM E84-16 for Flame Spread Index (FSI) and Smoke Developed Index (SDI), Self-Ignition & Flash-ignition performance to test method ASTM D1929-16 and Fire Classification according to test requirements of Classification standard EN 13501-1:2007+A1:2010 – “Fire classification of construction products and building elements-Part 1: Classification using data from reaction to fire test”, subject to the limitations stated herein. Readers of this document should be familiar with Reaction to Fire Testing and the requirements of ISO/IEC 17065:2012. The Certification will be listed on www.tbwcert.com, while it remains current. This Certification is not valid if it is not listed.
2. The product is approved on the basis of TBWIC Product Certification Scheme SD03 for Exterior Wall Assemblies, Cladding, Curtain Walls, Building Materials, Products and Assemblies which includes pre-test sampling, evidence of performance (under reference test reports: TBW/RJ062, Intertek/103269804MID-001, AFIT/3205T17-2.R1), Technical Verification and Proof of Performance, compliance to Factory Production Control requirements and surveillance & Re-certification Inspection/ Audits. This Certification covers performance against the following test standards:
 - 2.1. ASTM E84-16 (Steiner Tunnel) – Standard test method for Surface Burning Characteristics of Building Materials
 - 2.2. ASTM D1929-16 – Standard Test Method for Determining Ignition Temperature of Plastics
 - 2.3. EN 13501-1:2007+A1:2010 – Fire Classification of Construction Products and Building Elements - Part 1: Classification Using Data From Reaction To Fire Tests.
3. Products covered under this certification are 6 mm thick “**Steni Colour**” and “**Steni Vision**” stone composite panels. The products consist of fiberglass-reinforced cured polymer composite with a core of crushed natural stone. Both products have top surfaces of electron beam-cured acrylic with the addition of ink printing over the surface of “Steni Vision”. The product specifications covered by this certificate are presented in Section 5 and 6.
4. Limitations:
 - 4.1. The tests standards covered under this certification were used to measure the response of materials, products, or assemblies to heat and flame under controlled conditions. The results described in each particular test report(s) on its own shall not be used as sole criteria for fire-hazard or fire-risk assessment of the materials, products, or system assemblies under actual fire conditions.
 - 4.2. The overall thickness and weight per unit area of the product shall be according to Section 5.
 - 4.3. This certification is only valid for material as tested. No variation is allowed in composition, build-up and ordering of layers.
 - 4.4. This certification pertains to the tested material only and does not include the system or structural assembly onto which it will be installed.
 - 4.5. The test (and Certification) do not address the following:
 - a. Measurement of heat transmission
 - b. Effect of aggravated flame spread behaviour of an assembly resulting from proximity of combustible walls and ceilings.
 - c. Any Resistance to Fire rating
 - d. Toxicity level of smoke developed during combustion
 - e. Fire propagation characteristics when tested as large scale façade cladding assembly

Certificate number: TBW0300255.1



Certification Manager
Nick Purcell

Seal number: 100459

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Issued: 21 Mar. 2018
Valid to: 15 Nov. 2020

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5. Product details and test results

5.1. Product details

- a. Material: Steni Stone Composite Panel – 6 mm thick
- b. Reference: “Steni Colour”/ “Steni Vision”
- c. Thickness: 6 ± 0.6mm
- d. Weight per unit area: 12 kg/m² ± 5%

5.2. Test Results

- a. When tested in accordance with ASTM E84-16, the 6 mm thick Steni Stone Composite Panel material (“Steni Colour”/ “Steni Vision”) meets the criteria for Classification of “Class A” (International Building Code 2015).

Test Report Reference: RJ062

Flame Spread Index (FSI)	15
Smoke Developed Index (SDI)	150

- b. When tested in accordance with ASTM D1929-16, the 6 mm thick Steni Stone Composite Panel material (“Steni Colour”) ignition temperatures are as follows:

Test Report Reference: Intertek/103269804MID-001

Self- Ignition Temperature	438 °C
Flash Ignition Temperature	431 °C

- c. When tested in accordance with test requirements of EN 13501-1:2007+A1:2010, 6 mm thick Steni Stone Composite Panel material (“Steni Colour”/ “Steni Vision”) achieves the following classification:

Test Report Reference: AFITI/3205T17-2.R1

Class B - s1, d0

6. Typical product details

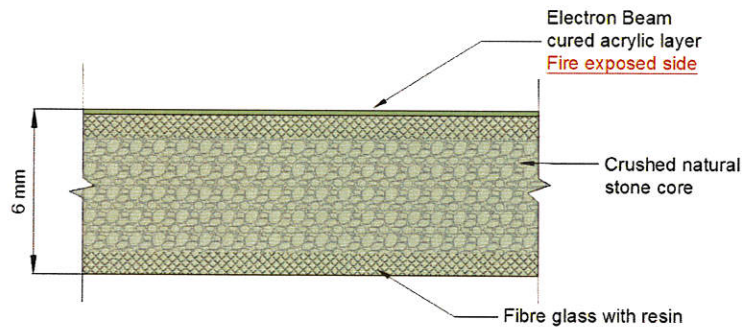


Figure 1: Typical cross-section detail of 6 mm thick Steni Stone Composite Panel

7. Approved Manufacturing Location

Steni AS
Lågendalsbeien 2633,
3277 Steinsholt,
Norway



Certification Manager
Nick Purcell

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