

What this document is, and what it is not

Every figure here is a **measured value** from an accredited third-party laboratory, transcribed from the reports listed in section 1. Stenvak compiled the document; the reports themselves are held by the manufacturer and are available on request.

The binding CE performance is the Declaration of Performance issued by **Taishi Energy Conservation (Qingdao) Co., Ltd.** against harmonised standard EN 13162:2012+A1:2015, which declares **Reaction to fire = Class A1** under AVCP System 1, assessed by Intertek, EU notified body 2649, certificate 2649-CPR-26000401. Every other essential characteristic is NPD on that certificate and therefore NPD on the DoP.

Section 2 sits inside that declaration. It carries the Intertek reaction-to-fire tests and EN 13501-1 classifications commissioned by the certificate holder and issued three weeks before the certificate. **Sections 3 onward sit outside it.** Those figures are measured data and are not CE-declared performances.

The reason for the split is procedural, not physical. A CE-declared thermal or mechanical value requires an AVCP System 3 initial type test at an EU **notified** laboratory. The laboratories in sections 3 to 5 are CMA and CNAS accredited under ilac-MRA, which makes their measurements traceable and mutually recognised, but does not make them notified bodies. So the numbers are real and the declaration stays NPD.

Two legal entities appear in section 1. **Taishi Energy Conservation (Qingdao) Co., Ltd.** holds the CE certificate, issues the DoP, and commissioned the Intertek reaction-to-fire work and the EN 12667 thermal series. **Taishi Energy Conservation Materials Co., Ltd. (Tai'an, Shandong)** is the group parent and commissioned the remaining reports. Each report is listed under the entity printed on it and the two are not merged.

1 Source reports

REF	REPORT NO.	LABORATORY AND ACCREDITATION	ISSUED	SCOPE AND CLIENT
TR-01	WSW 25100045 to 25100053	CTC Nanjing Guocai Testing Co., Ltd. / National Fiberglass Product Quality Inspection and Testing Center CMA 230010260188 · CNAS L0846 · ilac-MRA	30 October 2025	Thermal conductivity at 10 °C mean, EN 12667:2001. Nine separate reports, one per density. Commissioned by Taishi Energy Conservation (Qingdao) Co., Ltd.
TR-02	XJ2026B03D02237	CTC Group / National Research Center of Testing Techniques for Building Materials CMA 220002349162 · CNAS L0690 · ilac-MRA	24 July 2026	Type test to GB/T 19686-2015, 15 items. Multi-purpose rock wool board 1200 × 600 × 50 mm, 80 kg/m³. Commissioned by Taishi Energy Conservation Materials Co., Ltd. (Tai'an, Shandong)
TR-03	WSW 25030179	CTC Nanjing Guocai Testing Co., Ltd. / National Fiberglass Product Quality Inspection and Testing Center CMA 230010260188 · CNAS L0846 · ilac-MRA	2 July 2025	Sampled type test to GB/T 19686-2015, GB 8624-2012 and T/CECS 10032-2019, 17 items. Curtain-wall board 1200 × 600 × 50 mm, 100 kg/m³. Commissioned by Taishi Energy Conservation Materials Co., Ltd. (Tai'an, Shandong)
TR-04	SHFS2401000125FF	SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. CNAS L0599	12 March 2024	EN 13162 property suite and EN 13501-1 classification. TAISHI ERW exterior-wall board 1200 × 600 × 100 mm, 140 kg/m³. Commissioned by Taishi Energy Conservation Materials Co., Ltd. (Tai'an, Shandong)
TR-05	SHFS2401000126FF	SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd.; acoustic subcontracted to SGS-CSTC Changzhou, CNAS L3533 CNAS L0599	12 March 2024	EN 13162 property suite, EN 13501-1 classification and ASTM C423 sound absorption. TAISHI SRW sound-absorbing board 1200 × 600 × 50 mm, 80 kg/m³. Commissioned by Taishi Energy Conservation Materials Co., Ltd. (Tai'an, Shandong)
TR-06/07/08	251202026SHF-001, -002, -003	Intertek Testing Services Shenzhen Ltd., Shanghai Fengxian Branch Intertek B&C; classification signed off by the Technical Manager	3 February 2026	EN ISO 1182 non-combustibility and EN ISO 1716 calorific value, feeding the EN 13501-1 classification. Stone wool, 40 kg/m³. Commissioned by Taishi Energy Conservation (Qingdao) Co., Ltd.

REF	REPORT NO.	LABORATORY AND ACCREDITATION	ISSUED	SCOPE AND CLIENT
TR-09/10/11	251202026SHF - 004, -005, -006	Intertek Testing Services Shenzhen Ltd., Shanghai Fengxian Branch Intertek B&C; classification signed off by the Technical Manager	3 February 2026	EN ISO 1182 non-combustibility and EN ISO 1716 calorific value, feeding the EN 13501-1 classification. Stone wool, 180 kg/m³. Commissioned by Taishi Energy Conservation (Qingdao) Co., Ltd.

2 Reaction to fire, EN 13501-1

This is the one essential characteristic the CE certificate declares, and these are the reports behind it. Intertek personnel selected the specimens at the manufacturing plant, witnessed them during production and tagged them before shipment on 26 December 2025; the specimens reached the evaluation centre on 30 December 2025. Both ends of the certified density range were sampled and classified separately. EN 13501-1 classifies by bracketing, so a class held at 40 and at 180 kg/m³ covers the densities between them.

TEST PARAMETER	TEST METHOD	CLASS A1 CRITERION	40 kg/m³ report -001 / -002	180 kg/m³ report -004 / -005
Furnace temperature rise, ΔT	EN ISO 1182:2020	≤ 30 °C	13.0 °C	16.1 °C
Mass loss, Δm	EN ISO 1182:2020	≤ 50 %	6.5 %	4.2 %
Duration of sustained flaming, t _f	EN ISO 1182:2020	0 s	nil	nil
Gross heat of combustion, PCS	EN ISO 1716:2010	≤ 2.0 MJ/kg	1.2437 MJ/kg	1.2100 MJ/kg
EN 13501-1:2018 classification	Clause 8	A1 to F	Class A1 report -003	Class A1 report -006

Smoke production (s) and flaming droplets (d) are not applicable to a Class A1 product and are recorded as such on both classification reports. Field of application on both: construction applications.

3 Thermal conductivity across the certified density range

Measured to EN 12667:2001 at 10 °C mean temperature, the reference condition used for λ_D under EN 13162. Nine separate specimens, one per density, each with its own report number and production date. Specimen thickness varies by report and is printed for that reason. λ is a material property and does not vary with thickness; thermal resistance does, and is R = d ÷ λ for a given thickness d.

NOMINAL DENSITY	SPECIMEN THICKNESS	λ AT 10 °C MEAN	REPORT NO.	PRODUCED
40 kg/m³	50 mm	0.035 W/(m·K)	WSW 25100052	25 Sep 2025
60 kg/m³	60 mm	0.032 W/(m·K)	WSW 25100053	25 Sep 2025
80 kg/m³	80 mm	0.031 W/(m·K)	WSW 25100046	29 Sep 2025
100 kg/m³	100 mm	0.031 W/(m·K)	WSW 25100045	08 Sep 2025
110 kg/m³	120 mm	0.031 W/(m·K)	WSW 25100047	26 Sep 2025
120 kg/m³	150 mm	0.034 W/(m·K)	WSW 25100048	20 Sep 2025
140 kg/m³	200 mm	0.034 W/(m·K)	WSW 25100049	04 Oct 2025
160 kg/m³	30 mm	0.034 W/(m·K)	WSW 25100050	21 Sep 2025
180 kg/m³	100 mm	0.037 W/(m·K)	WSW 25100051	04 Sep 2025

4 Property suite measured by EN test methods

Reports TR-04 and TR-05, tested to the EN methods called up by EN 13162:2012+A1:2015. These are the two grades for which a full EN-method suite exists. The reports carry no conformity verdict: every verdict column reads N/A, because the tests were commissioned as measurement, not as certification.

PROPERTY	TEST METHOD	140 kg/m³ ERW exterior wall · TR-04	80 kg/m³ SRW sound- absorbing · TR-05
Reaction to fire	EN 13501-1:2018 (EN ISO 1182:2020, EN ISO 1716:2018)	Class A1	Class A1
Furnace temperature rise, ΔT	EN ISO 1182:2020	6.8 °C	3.6 °C

PROPERTY	TEST METHOD	140 kg/m ³ ERW exterior wall · TR-04	80 kg/m ³ SRW sound- absorbing · TR-05
Mass loss, Δm	EN ISO 1182:2020	5.4 %	4.7 %
Duration of sustained flaming, t _f	EN ISO 1182:2020	0 s	0 s
Gross heat of combustion, PCS	EN ISO 1716:2018	1.1 MJ/kg	1.0 MJ/kg
Thermal conductivity, λ	EN 12667:2001, heat-flow meter	0.0354 W/(m·K)	0.0326 W/(m·K)
Thermal resistance, R, at the tested thickness	EN 12667:2001	2.30 m ² ·K/W at 100 mm	1.53 m ² ·K/W at 50 mm
Apparent density	EN 1602:2013	146 kg/m ³	81.8 kg/m ³
Compressive stress at 10 % deformation, CS(10)	EN ISO 29469:2022	66.6 kPa	13.5 kPa
Tensile strength perpendicular to faces, TR	EN 1607:2013	20.5 kPa	<i>not tested</i>
Short-term water absorption, W _S	EN ISO 29767:2019, method A	0.09 kg/m ²	<i>not tested</i>
Long-term water absorption, W _{L(P)}	EN ISO 16535:2019, method 1A	0.18 kg/m ²	<i>not tested</i>
Dimensional stability, length / width / thickness	EN 1604:2013	0.0 / 0.0 / 0.5 %	<i>not tested</i>
Length / width	EN ISO 29465:2022	1200 / 600 mm	1200 / 600 mm
Thickness	EN ISO 29466:2022	100 mm	50 mm
Squareness, in plane / on thickness	EN 824:2013	0.0 / 0.0 mm	0.0 / 0.0 mm
Flatness	EN ISO 29468:2022	0.0 mm	0.0 mm

5 Full characterisation to GB/T 19686-2015

Type tests on sampled production, covering properties that the EN suite does not reach: fibre diameter, shot content, hydrophobicity, corrosivity to steel, alkalinity, radioactivity and formaldehyde emission. Both reports returned Complies on every item against the limits shown. Reaction to fire is Class A (A1) to GB 8624-2012 in both, which is the Chinese national classification and is stated as such, not as a Euroclass.

PROPERTY	TEST METHOD	LIMIT	100 kg/m ³ Curtain wall · TR-03	80 kg/m ³ Multi-purpose · TR-02
Density	GB/T 5480-2017, 7	±10 % of nominal	99 kg/m ³	84 kg/m ³ (+5 %)
Average fibre diameter	GB/T 5480-2017, 8	≤ 6.0 μm	5.0 μm	4.7 μm
Shot content, particles > 0.25 mm	GB/T 5480-2017, 9	≤ 7.0 %	5.8 %	2.5 %
Moisture absorption by mass	GB/T 5480-2017, 11	≤ 0.5 %	0.13 %	0.1 %
Hydrophobicity	GB/T 10299-2011	≥ 98.0 %	99.9 %	99.9 %
Short-term water absorption, partial immersion	GB/T 30805-2024	≤ 0.5 kg/m ²	0.1 kg/m ²	0.1 kg/m ²
Water absorption by volume, full immersion	GB/T 5480-2017, 13	no limit set	0.8 %	<i>not tested</i>
Thermal conductivity at 25 °C mean	GB/T 10295-2008	≤ 0.040 W/(m·K)	0.033 W/(m·K)	0.034 W/(m·K)
Radionuclides, internal exposure index I _{Ra}	GB 6566-2010	≤ 1.0	0.3	0.1
Radionuclides, external exposure index I _r	GB 6566-2010	≤ 1.0	0.3	0.2
Reaction to fire, gross heat of combustion	GB/T 14402-2007	≤ 2.0 MJ/kg	1.4 MJ/kg	1.0 MJ/kg
Reaction to fire, mass loss rate	GB/T 5464-2010	≤ 50 %	4.0 %	6 %
Reaction to fire, furnace temperature rise	GB/T 5464-2010	≤ 30 °C	7 °C	4 °C
Reaction to fire, duration of sustained flaming	GB/T 5464-2010	0 s	0 s	0 s
Corrosivity to steel	GB/T 11835-2007, Annex E	rank sum ≥ 21	40	<i>not tested</i>
Noise reduction coefficient, reverberation room	GB/T 20247-2006	≥ 0.70	0.90	0.90
Acidity coefficient, M _k	GB/T 5480-2017, 10	≥ 1.6	2.0	2.0

