

CERTIFICATE OF PRODUCT COMPLIANCE

Certificate No. PC00003

ACES hereby attest under compliance with ISO 17065 that the listed product:

INSULATED GLASSWOOL SANDWICH PANEL (50mm)

Assembled by:

KOYEE CONTAINER WORKSHOP

BIRKAT AL AWAMER LOGISTICS PARK

BUILDING 73, STREET 3004, ZONE 91

Doha – Qatar, PO Box 93720

Tel: 00974 4472 9161

Phone : 00974 7058 8099

Email: info@koyeecontainerqa.com

And Manufactured by:

FOSHAN DESUMAN BUILDING MATERIALS

TECHNOLOGY CO., LTD

BESIDE OLD 321 NATIONAL ROAD, MUTUAN VILLAGE

SHISHAN TOWN, NANHAI DISTRICT

FOSHAN CITY, GUANGDONG PROVINCE, CHINA

Email: dsm001@desuma.et

Have been assessed in accordance with the requirements of the
Technical Scheme denoted below and are approved for use
subject to the conditions appended hereto:

TECHNICAL SCHEME

ACES/SM/02

**BUILDING MATERIALS, PRODUCTS AND ASSEMBLIES SYSTEM
(INSULATED SANDWICH PANELS SYSTEM)**

Accordingly, ACES hereby authorize the above manufacturer
to affix the ACES Product Conformity Mark
on the above-mentioned product(s).



Eng. Ghaleb Al Zubi
Managing Director

Issued : 14-05-2023

Expiration: 13-05-2025



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This certificate attests all provisions concerning the evaluation of the performance under characteristics which are applied and the product(s) fulfil(s) all prescribed requirements set out in this certificate.

	ITT TEST REPORT	AUDIT REPORT	CERTIFICATE OF COMPLIANCE
Number:	TMQ23003314 TEQ23001383	QPCB004-F007/AR23-PCQ-003	PC00003
Date of issue	05-05-2023	09-05-2023	14-05-2023
Expiry date	ITT and Audit Report remains valid provided that the product, the relevant standards, and the production process remain unchanged until the next scheduled surveillance, which should be dated on or before 09/05/2024.		13-05-2025


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1. This approval is predicated on the product's demonstrated performance and its compliance with the technical declarations and assessment criteria specified in BS EN 13501-1, which were validated through prescribed testing procedures.
2. The certification of thermal insulation product(s) manufacture by Koyee Container Factory are approved on the basis of:
 - i) Initial type testing (under references shown in Page 2 of 6)
 - ii) Verification of Quality Management Systems to ISO 9001
 - iii) Audit testing as specified in ACES/SM/02
 - iv) Inspection and surveillance of factory production control
3. The approval relates to on-going production. The product and/or its immediate packaging is identified with the manufacturers' name, the product name or number, the ACES name or name and mark, together with the ACES certificate number and application where appropriate.
4. If there are additional or supplementary characteristic requirements that were not included in the certification's initial type testing (ITT), these characteristics will require separate evaluation to determine whether the product meets the enhanced product requirements.
5. For verification of the validity of this certificate, please contact ACES Certification Department.


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I. Reaction to Fire Classification and Performance:

The products have been tested based and according to the ACES/SM/02 Initial Type Testing requirements. The products were then assessed and met the requirements of the BS EN 13501-1 and technical data sheet declarations.

Reaction to Fire Classification as per BS EN 13501-1

Product: Insulated Glasswool Sandwich Panel (50mm)

Gross Heat of Combustion	: 1.2 MJ/kg
Combustibility	: $\Delta T = 8.3^{\circ}\text{C}$ / $\Delta m = 8.1\%$ / $tf = \text{None}$
Reaction to Fire Classification	: A1

II. Important Note:

It is critical to emphasize that the outcomes of reaction to fire classification tests for insulated glasswool sandwich panels should be assessed in accordance with the specifications stipulated in ACES/SM/02 and ISO 17065. These standards provide essential guidelines and procedures for evaluating the fire performance of building materials, including insulated glasswool sandwich panels. While the reaction to fire classification test results are a vital aspect of determining the panels' suitability for a specific application, they must be considered within the wider context of these standards and other relevant regulations or guidelines.

Therefore, it is imperative to review and evaluate the results of the reaction to fire classification test alongside the relevant standards to ensure accurate and reliable conclusions about the panels' fire performance. This approach will help to ensure that the panels meet the necessary safety standards and are suitable for their intended use in real-world scenarios, thereby minimizing the risk of fire incidents and their potential consequences.

III. Limitations:

1. The reaction to fire classification test according to BS EN 13501-1 only assesses the reaction to fire of building materials and products, and not their ability to resist structural failure under fire conditions. Therefore, it does not provide a complete evaluation of the fire performance of insulated glasswool sandwich panels.


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2. The reaction to fire classification test is conducted under controlled laboratory conditions that do not necessarily reflect the real-life fire scenario in a building. As a result, the test results may not be entirely representative of the panels' fire performance in actual fire conditions.
3. The reaction to fire classification test is carried out on a specific panel configuration and size, and the results may not be directly applicable to different panel configurations or sizes. The actual fire performance of an insulated glasswool sandwich panel may vary depending on its specific configuration, installation, and use in a building.
4. The reaction to fire classification test is conducted using a specific ignition source and fire load, which may not reflect the actual fire hazards in a building. The actual fire performance of an insulated glasswool sandwich panel may be affected by other factors such as the size and nature of the fire load and the location and intensity of the ignition source.

IV. Initial Type Testing (with reference to TMQ23003314/TEQ23001383)

50mm Insulated Glasswool Sandwich Panel Assembly Components

Glasswool

Compression Behavior at 10% Deformation	: 44.82 kPa
Apparent Density	: 41.4 kg/m ³
Short Term Water Absorption	: 0.38 kg/m ²
Dimension Stability	: $\Delta\epsilon_l = 0.013\%$ / $\Delta\epsilon_b = 0.013\%$ / $\Delta\epsilon_d = 0.047\%$
Water Vapor Transmission Rate	: 1.883 g/m ² .24h
Thickness	: 48.2 mm
Bending Strength	: 49.5 kPa
Shear Strength	: 24.3 kPa
Flatness	: $l = 0.16 \text{ mm}$ / $b = 0.14 \text{ mm}$
Tensile Strength	: 101.68 kPa
Thermal Conductivity	: 0.0373 W/m.K
Moisture Content	: 0.9 %
Chemical Resistance	: Resistant

Galvanized Steel Plate

Coating Thickness	: 18 μm
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For Engineering Studies

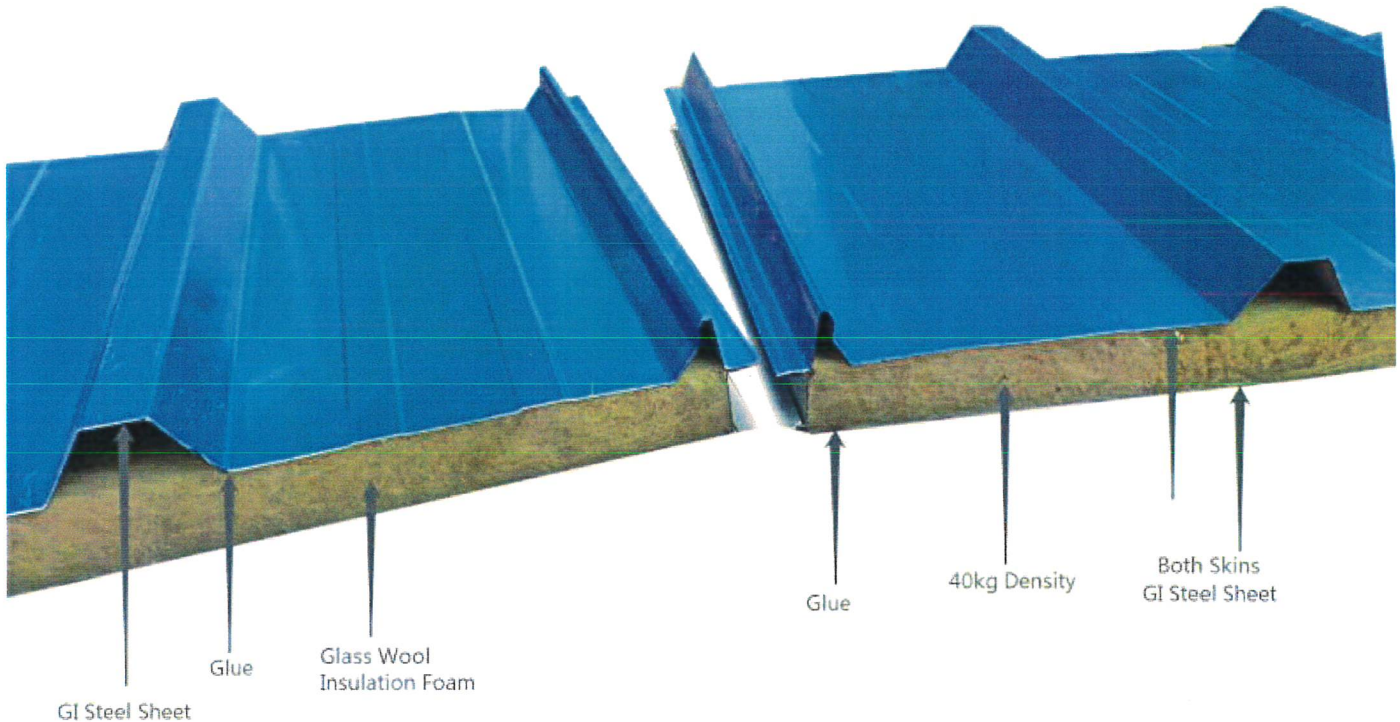
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Adhesive Glue

Viscosity at 25°C	:	137 KU
Pull-Off Strength	:	3.6 MPa
Appearance	:	Light Yellow Liquid/Smooth/Free from Foreign Particles
Drying Time	:	1 hour 35 minutes

V. Illustrative Figure




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Further Information

Further information regarding the details contained in this data sheet may be obtained from:

KOYEE CONTAINER WORKSHOP

BIRKAT AL AWAMER LOGISTICS PARK, BUILDING 73, STREET 3004, ZONE 91, DOHA – QATAR,

Tel : 00974 4472 9161

Phone : 00974 7058 8099

Email : info@koyeecontainerqa.com

Further information regarding ACES and other approved products can be obtained from ACES by contacting the below details:

Tel: 00974 4487 0141

Website: www.aces-int.com


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