





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

to

Jiangsu Dongfang Botec Technology Co., Ltd.

Huayu Road 8, Donglai District, Yangshe Town, Zhangjiagang, China

for

"Alubotec FR Euroclass A2" Aluminium Composite Material Core Test Standard: ASTM E84-16

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 25th day of September, 2016

Toursch-Wright

Certification Director

Certificate number: TBW133c Initial registration: September 25, 2016 File Name: QF007 Alubotec ASTM E84

CERTIFIED CERTIFIED

Suresh Kumar Quality Manager

Schedule number: TBW133s Issued: September 25, 2016 Seal Number: 100093 Expiration: September 24, 2019 Save Date: 9/25/16 4:52 PM

Revised certificate, identified as certificate number TBW###-X, supersedes previous versions from the issue date above.

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: fire@bell-wright.com. Web: www.bell-wright.com

"Alubotec FR Euroclass A2" Aluminium Composite Material Core

- Certification is given for the "Alubotec FR Euroclass A2" 3 mm thick core of aluminium composite material Reaction to Fire Test to the test standard ASTM E84-16 for Flame Spread Index (FSI) and Smoke Development Index (SDI), subject to the limitations given below. 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.
- 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 ref: TBWIC Test Report No. QF013-2 Rev. 02), Technical Verification and Proof of Performance, compliance to Factory Production Control requirements and surveillance & Re-certification Inspection/ Audits.

3. Limitations:

- 3.1. This Certification covers performance against ASTM E84-16 (Steiner Tunnel)-Standard test method for Surface Burning Characteristics.
- 3.2. This Certification covers the specifications of the aluminium composite panel core material as tested which are described in more detail in Section 4 and 6 including:
 - 3.2.1. Core material
 - 3.2.2. Density/ Weight per unit area
- This certification pertains to the tested material only and does not include the system or wall structure where it will be installed.
- 3.4. The test (and Certification) do not address the following:
 - 3.4.1. Measurement of heat transmission.
 - 3.4.2. Effect of aggravated flame spread behavior of an assembly resulting from proximity of combustible walls and ceilings.
 - 3.4.3. Classification or definition of material as noncombustible.
 - 3.4.4. Any Resistance to Fire rating.
 - 3.4.5. Toxicity level of smoke developed during combustion.
- 4. Product details and test results:
 - 4.1. "Alubotec FR Euroclass A2" 3.0 mm thick core material only
 - 4.1.1. When tested in accordance with ASTM E84-16, the core of "Alubotec FR Euroclass A2" meets the criteria for a classification Class A or Class 1 (International Building Code 2012) Test Report Reference: QF013-2 Rev.02

Flame Spread Index (FSI)	10	
Smoke Development Index (SDI)	55	

- 4.1.2. Core Thickness 3.0 mm (Flame Retardant natural inorganic mineral filled core)
- 4.1.3. Minimum Density 1.8 kg/m³

Certificate number: TBW133c

Page 2 of 3

Director Of Certification Thomas F. Bell-Wright Schedule number: TBW133s

Issued: 25 Sept. 2016 Valid to: 24 Sept. 2019

This Certificate is the property of Thomas Bell-Wright International Consultants UAE.

Registered office: P.O. Box 26385, Dubai, UAE

5. Approved Manufacturing Location

Jiangsu Dongfang Botec Technology Co., Ltd. Huayu Road 8, Donglai District Yangshe Town, Zhangjiagang, China

6. "Alubotec FR Euroclass A2" typical Details

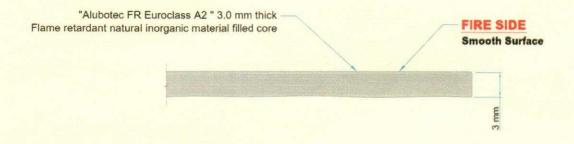


Figure 1. Typical "Alubotec FR Euroclass A2" Core material section details

Certificate number: TBW133c

Page 3 of 3

Director Of Certification Thomas F. Bell-Wright Schedule number: TBW133s

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