

# TEST REPORT

## REACTION TO FIRE TEST

### Test Sponsor:

International Development Company Metal Industries – Sole Proprietorship L.L.C. (IDCMI)  
Al Mafrq  
P.O. Box 2621  
Abu Dhabi, United Arab Emirates  
T: +971 2 505 6300 | F: +971 2 582 3088  
Website: [www.idcuae.com](http://www.idcuae.com)

### Test Material:

3mm thick 'Clad core' Core of Aluclad Aluminium Composite Panel

### Test Standard

ASTM D1929-20 – Standard Test Method for Determining Ignition Temperature of Plastics



**THOMAS BELL-WRIGHT**  
**INTERNATIONAL CONSULTANTS**

Test Date: 10-Jan-22  
Issue Date: 19-Jan-22  
Test Reference No.: VL079-1

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DUBAI

ABU DHABI

DOHA

RIYADH



## Accreditation

### Testing

ISO/IEC 17025: General requirements for the competence of testing and calibration laboratories with:

United Kingdom Accreditation Service (UKAS) - Testing Laboratory: **4439**  
[www.ukas.com](http://www.ukas.com)



## Memberships

Members of European Group of Organization for Fire Testing, Inspection and Certification

[www.egolf.org.uk](http://www.egolf.org.uk)

Member of Association for Specialist Fire Protection

[www.asfp.org.uk](http://www.asfp.org.uk)

Member of Centre for Window and Cladding Technology

[www.cwct.co.uk](http://www.cwct.co.uk)



The work which is the subject of this report falls under the accreditations of **ISO 17025 UKAS**.



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## 1. INTRODUCTION

Determination of the flash ignition temperature and spontaneous ignition temperature of 3mm thick 'Clad core' Core of Aluclad Aluminium Composite Panel using hot-air ignition furnace as per ASTM D 1929-20; Standard Test Method for Determining Ignition Temperature of Plastics.

## 2. SPONSOR

Name: International Development Company Metal Industries – Sole Proprietorship L.L.C (IDCMI)  
Address: Al Mafrag  
P.O. Box 2621  
Abu Dhabi, United Arab Emirates  
T: T: +971 2 505 6300 | F: +971 2 582 3088  
Website: www.idcuae.com

## 3. TESTING LABORATORY

Name: Thomas Bell-Wright International Consultants (TBWIC)  
Address: Corner of 46th and 47th Streets,  
Jebel Ali Industrial Area 1  
Dubai, United Arab Emirates  
T +971 (0)4 821 5777  
Website: www.bell-wright.com

## 4. DATE OF TEST

Sample received: 04-Jan-22  
Test date: 10-Jan-22

The test was witnessed by:

Name	Company	Contact Number
Ms. Sujana Haridas	Intertek Middle East	+971 54 583 2235

## 5. SPECIMEN DESCRIPTION

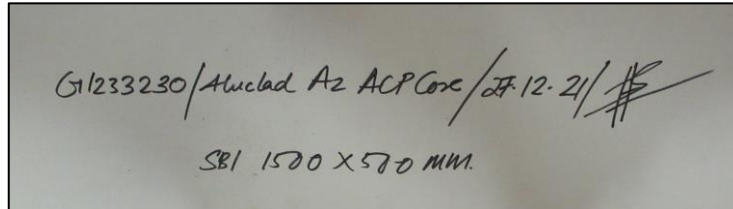
*Note: The testing laboratory does not hold any responsibility for the information that has been provided by the test sponsor which could not be verified by the testing laboratory, as this could affect the validity of the test result. All information that could not be verified will be indicated by an asterisk (\*) mark.*

<b>Product Description</b>	3mm thick core of 'Aluclad' Aluminium Composite Panel*
<b>Product Reference</b>	Clad core*
<b>Manufacturer</b>	International Development Company Metal Industries LLC* (stated)
<b>Colour</b>	White (observed)
<b>Thickness</b>	3.2mm (measured by TBWIC)
<b>Area Weight</b>	5.92 kg/m <sup>2</sup> (measured by TBWIC)
<b>Density</b>	1850 kg/m <sup>3</sup> (measured by TBWIC)
<b>Form Tested</b>	Sheet form (observed)



## 6. SPECIMEN VERIFICATION

TBWIC Testing Laboratory has not been involved in the selection or design of the specimen. However, the samples were selected, marked, and signed by Ms. Sujana Haridas from Intertek Certification (Certification Body) on 27-Dec-21 as shown below. The results apply to the samples as received.



*Note: There are contexts where information has been provided by the sponsor and verification of information has been done through either technical datasheet or other document submission, or as indicated directly by the sponsor. For this reason, materials have been tested in an as-received condition and TBWIC bears no liability for the legitimacy of the submitted information.*

## 7. SPECIMEN PREPARATION PROCEDURE

In accordance with section 7.2 of ASTM D1929-20, the sample provided by the sponsor were cut into a mass of  $3.0 \pm 0.2$  g, as it had a density greater than  $100 \text{ kg/m}^3$ . Each sample was conditioned as per sections 7.4 of ASTM D1929-20.

## 8. METHOD OF TEST

### 8.1. Test Procedure

The test specimens were evaluated in accordance with ASTM D1929-20, *Standard Test Method for Determining Ignition Temperature of Plastics*.

Flash Ignition Temperature (FIT) and Spontaneous Ignition Temperature (SIT) was then determined.

### 8.2. Conditioning

After delivery on 04-Jan-22, the specimen was stored in room temperature for a minimum of 40 hours prior to the test ranging from 21 to 25°C and 45 to 55% relative humidity.

Note: There were deviations observed in the temperature and relative humidity in 4 separate probes of thermo-hygrometer in our conditioning room, however the average values were within the limit.

## 9. TEST OBSERVATIONS

Observations	Results
<b>1. Flash Ignition:</b>	
Specimen weight, g	2.9
Air flow rate, $Q_v$	2.4
Flash Ignition at nozzle, min:sec	02:21
Flaming combustion of the specimen, min:sec	02:17
Glowing combustion of the specimen, min:sec	Not observed
Explosion, min:sec	Not observed



<b>Lowest Air Temperature, T<sub>2</sub>, at which flash observed, °C</b>	<b>536</b>
<b>2. Spontaneous Ignition:</b>	
Specimen weight, g	3.0
Air flow rate, Q <sub>v</sub>	2.4
Flaming combustion of the specimen, min:sec	02:14
Glowing combustion of the specimen, min:sec	Not observed
<b>Lowest Air Temperature, T<sub>2</sub>, at which the specimen burns, °C</b>	<b>541</b>

## 10. SUMMARY OF RESULTS

The test specimen has been evaluated in accordance with ASTM D 1929-20: Standard Test Method for Determining Ignition Temperature of Plastics.

The test results are:

<b>Flash Ignition Temperature (FIT), °C</b>	<b>541</b>
<b>Spontaneous Ignition Temperature (SIT), °C</b>	<b>536</b>

Test results relate only to the specimen tested and there is no pass or fail criteria for ASTM D1929-20 standard.

## 11. LIMITATION

“These test results relate only to the behavior of test specimens under the particular conditions of the test. They are not intended to be used, and shall not be used, to assess the potential fire hazards of a material in use.” - Clause 9.1.10 of ASTM D1929-20.

This report and all records of the test to which it relates may be not be retained by TBWIC further than 5 years from the date of testing.

This test report is respectfully submitted by: Thomas Bell-Wright International Consultants

Prepared by:

Vibin Mohanan

Technical Laboratory Assistant



Reviewed & Approved by:

Suketa Tyagi

Manager – Reaction to Fire

---- End of Test Report ----