

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

Test Material / Assembly:

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

Test Standard:

BS EN 13823:2020 Reaction to Fire Tests for Building Products — Building Products excluding Floorings exposed to the Thermal Attack by a Single Burning Item



THOMAS BELL-WRIGHT
INTERNATIONAL CONSULTANTS

Test Date: 10-Jan-22
Issue Date: 19-Jan-22
Test Reference No: VL079-3

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DUBAI

ABU DHABI

DOHA

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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



Memberships

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

www.egolf.org.uk

Member of Association for Specialist Fire Protection

www.asfp.org.uk

Member of Centre for Window and Cladding Technology

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 Reaction to fire performance of building products excluding floorings when exposed to thermal attack by a Single Burning Item (SBI) (a sand-box burner supplied with propane) in accordance with BS EN 13823:2020.

2. SPONSOR

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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



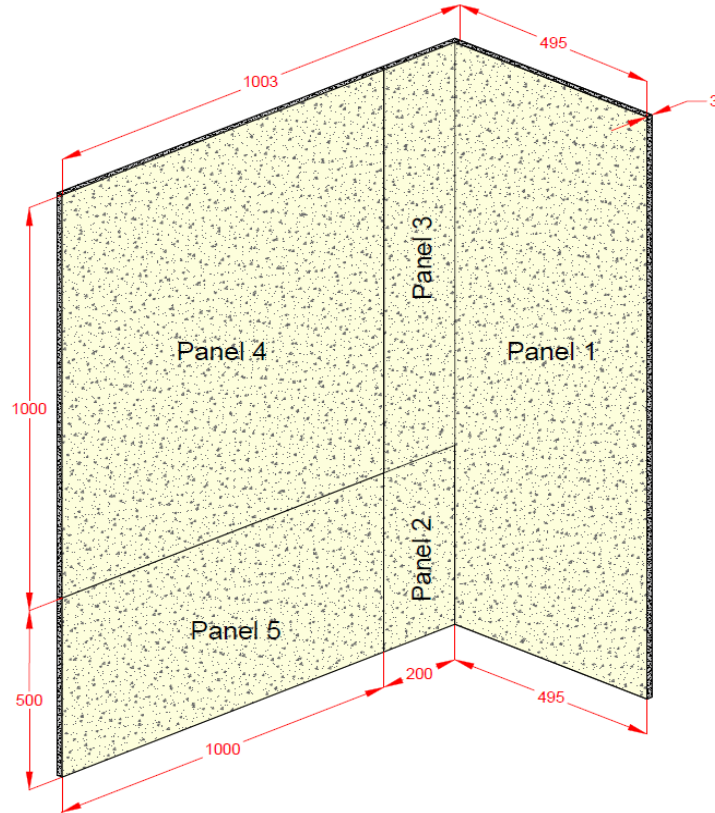
5. SPECIMEN DESCRIPTION

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.*

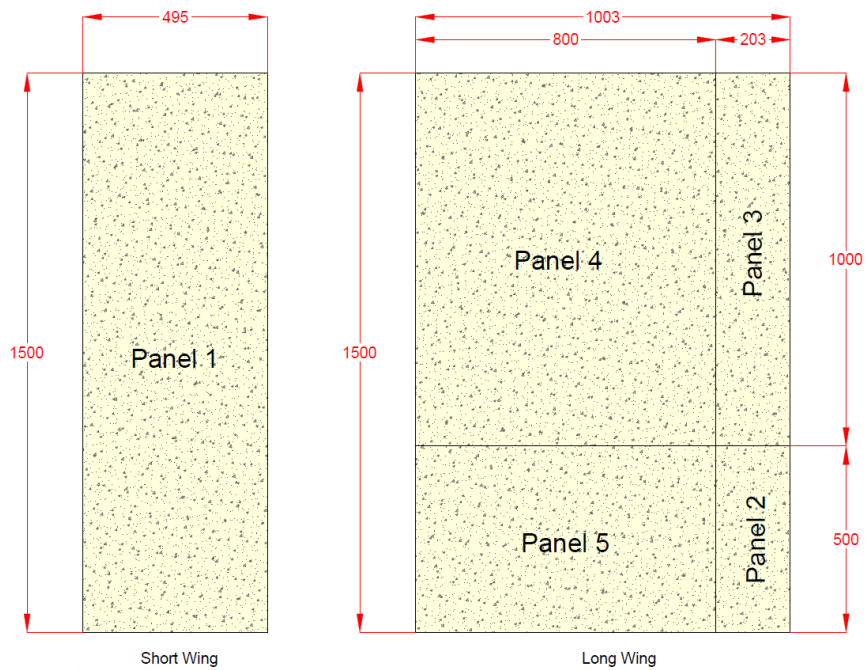
Product Description	3mm thick core of 'Aluclad' Aluminium Composite Panel*	
Product Reference	Clad core*	
Manufacturer	International Development Company Metal Industries LLC* (stated)	
Colour	White (observed)	
Thickness	3.2mm (measured by TBWIC)	
Area Weight	5.92 kg/m ² (measured by TBWIC)	
Density	1850 kg/m ³ (measured by TBWIC)	
Substrate Details	Material	Calcium Silicate Board (Verified by TBWIC)
	Density	885 kg/m ³ (Measured by TBWIC)
	Thickness	12 mm (Measured by TBWIC)
	Classification	A2-s1, d0 as per BS EN 13501-1:2018 (Verified by TBWIC)
Type of joint	<p>1. Vertical Joints: Butted joints at 200 mm from the inner corner, measured when the wings were mounted.</p> <p>2. Horizontal Joints: Butted joints at 500 mm from the bottom edge of the specimen, measured when the wings were mounted.</p> <p>Refer to Drawing No.1 for more details.</p>	
Specimen Dimensions	<p>Small Wing: Panel 1 – 495 x 1500 mm (w x h)</p> <p>Long Wing: Panel 2 – 203 x 500 mm (w x h)</p> <p>Panel 3 – 203 x 1000 mm (w x h)</p> <p>Panel 4 – 800 x 500 mm (w x h)</p> <p>Panel 5 – 800 x 1000 mm (w x h)</p> <p>Refer to Drawing No.1 & 2 for more information/ details.</p>	Measured by TBWIC
Specimen Placement/ Mounting	<p>The specimen was prepared according to section 5.2.2 of BS EN 13823:2020. The panels were tested without an air gap. The specimen was placed such that the bottom edges of the long and short wings rested against the respective U-profiles on the trolley floor and the side edge of the short wing specimen met the extended long wing specimen at the primary burner side.</p> <p>Refer to Drawing No. 1 & 2 for more details.</p>	



6. SPECIMEN DRAWING



Drawing 1: Front view of the long and short wing of test specimen.
All dimensions are in millimeters (mm)



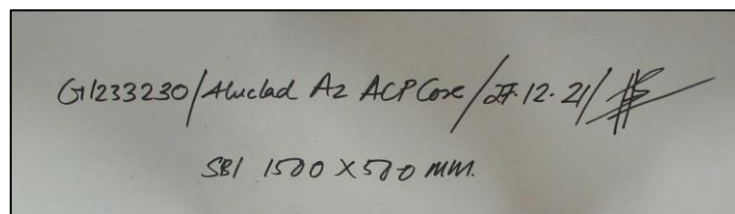
Drawing 2: Dimensions of the long and short wing of the test specimen.
All dimensions are in millimeters (mm)



Drawing 3: Top view of the mounted specimen without airgap.
All dimensions are in millimeters (mm)

7. 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.

8. METHOD OF TEST

8.1. Test Procedure

The test was performed in accordance with the requirements of BS EN 13823:2020 "Reaction to fire tests for building products – Building products excluding floorings exposed to the thermal attack by the single burning item".

8.2. Conditioning

After delivery on 04-Jan-22, the specimens were conditioned to constant weight at 21 to 25 °C and 45 to 55% relative humidity as per BS EN 13238:2010 "Reaction to fire tests for building products – Conditioning procedures and general rules for selection of substrates".



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. OBSERVATION

Test Data and Observation

Observations			
Occurrence of sustained flames reaching the far edge of long wing specimen at any height between 500-1000mm at any time during the test - LFS	Nil	Nil	Nil
Flaming droplets/particles within the first 600s	Nil	Nil	Nil
Burning droplets/particles ≥ 10 s within the first 600s	Nil	Nil	Nil
End of test, s	1560	1560	1560

10. SUMMARY OF RESULTS

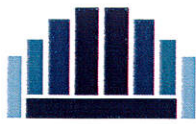
The test specimen has been evaluated in accordance with BS EN 13823:2020 Reaction to fire tests for building products — Building products excluding floorings exposed to the thermal attack by a single burning item.

Deviations: No deviations from the test method.

The complete test results for the panels are:

TEST PARAMETERS	TEST RESULTS			Average
	Specimen 1	Specimen 2	Specimen 3	
FIGRA _{0.2MJ} , W/s	0	0	0	0
FIGRA _{0.4MJ} , W/s	0	0	0	0
THR _{600s} , MJ	0.6	0.6	0.7	0.6
SMOGRA, m ² /s ² <i>Note 1</i>	0	0	0	0
TSP _{600s} , m ² <i>Note 1</i>	21	15	15	17
Occurrence of sustained flames reaching the far edge of long wing specimen at any height between 500-1000mm at any time during the test - LFS	Nil	Nil	Nil	Nil
Flaming droplets/particles ≥ 10 s within the first 600s	Nil	Nil	Nil	Nil
Burning droplets/particles ≤ 10 s within the first 600s	Nil	Nil	Nil	Nil

Note 1: Corrected value as per Annex A, Clause A.6.1.2 of BS EN 13823:2020.



11. LIMITATION

“The test results relate to the behavior of the test specimens of a product under the particular conditions of the test; they are not intended to be sole criterion for assessing the potential fire hazard of the product in use” - Clause 10q, BS EN 13823:2020.

Results are valid for the tested configuration only.

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:

Sam Sancho Thomas
Fire Testing Engineer

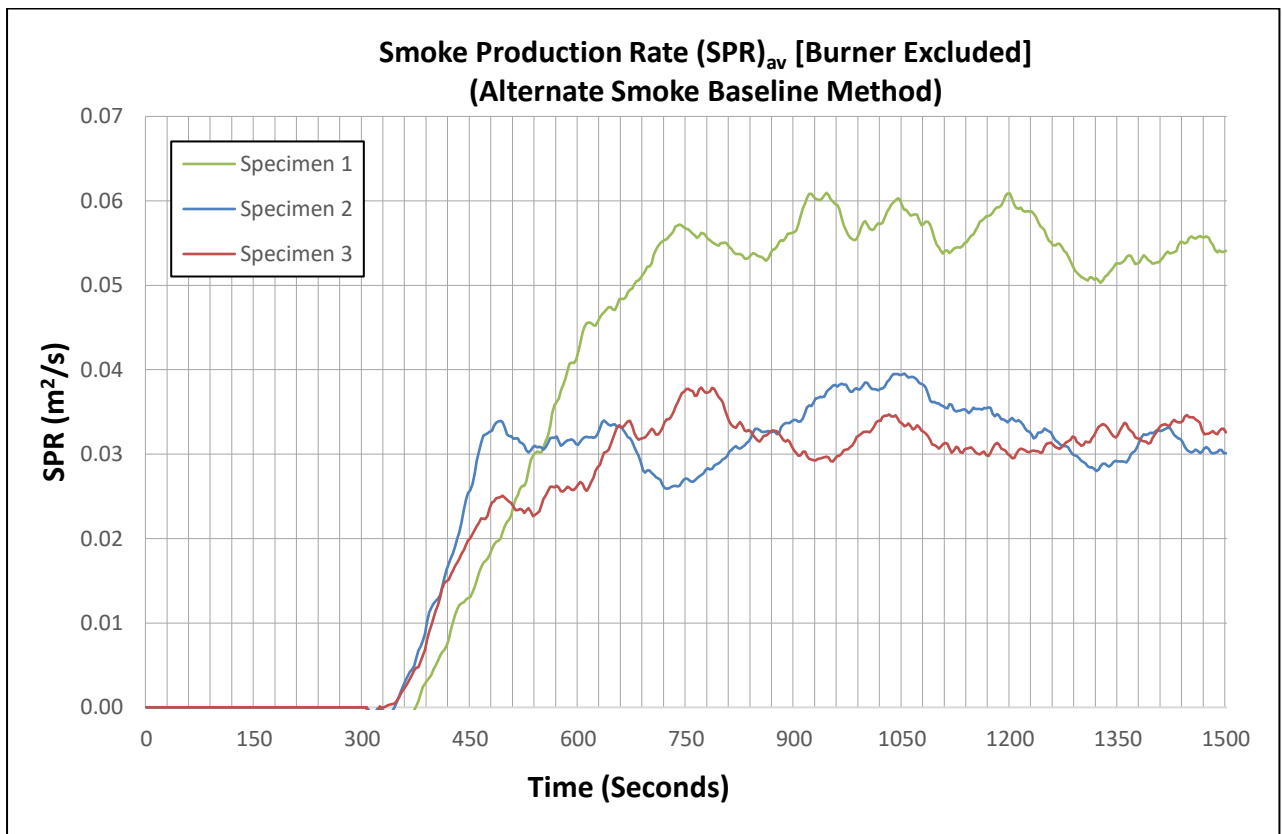
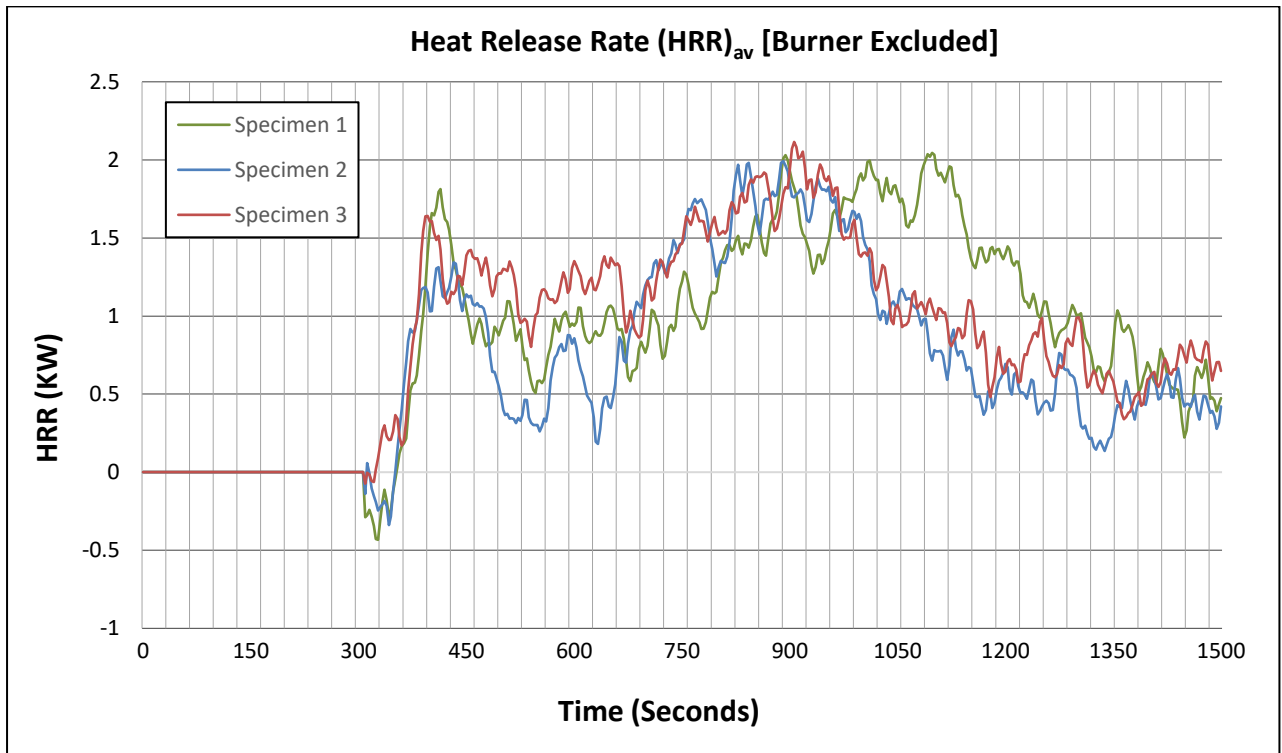


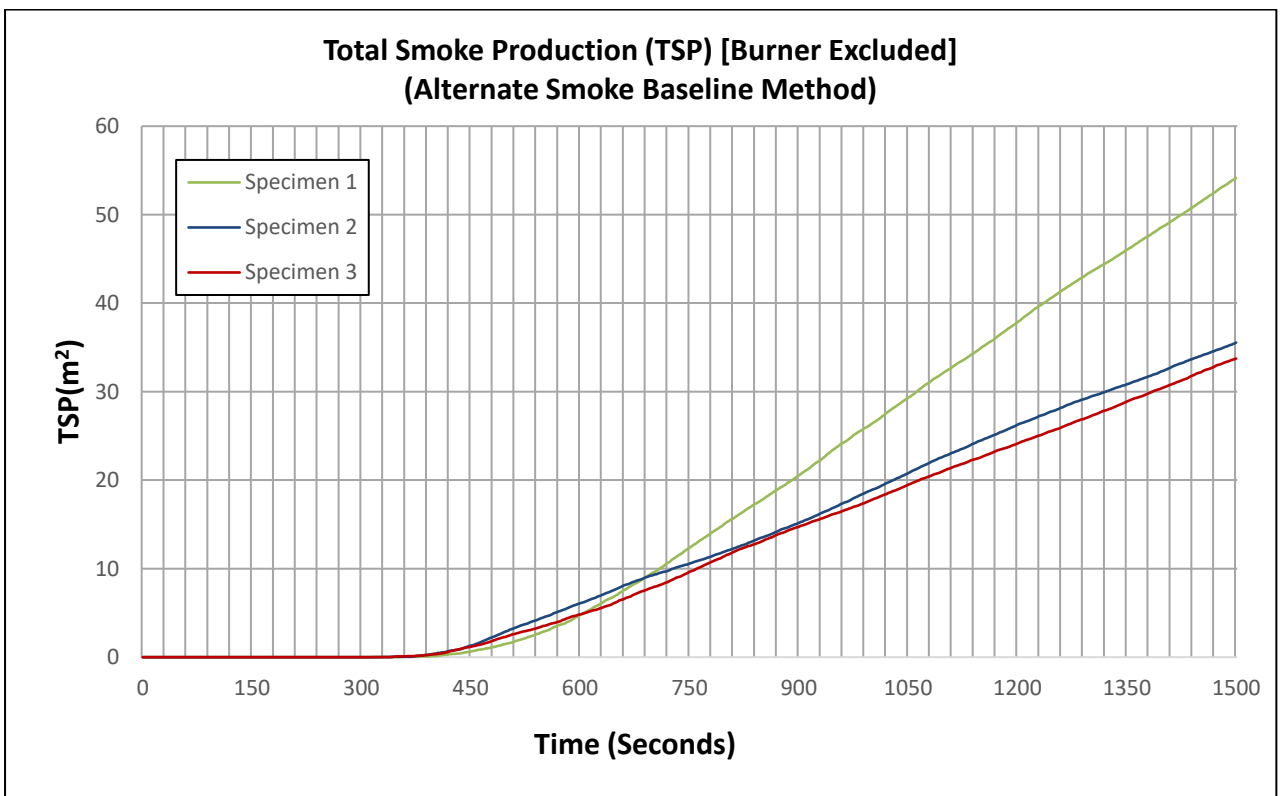
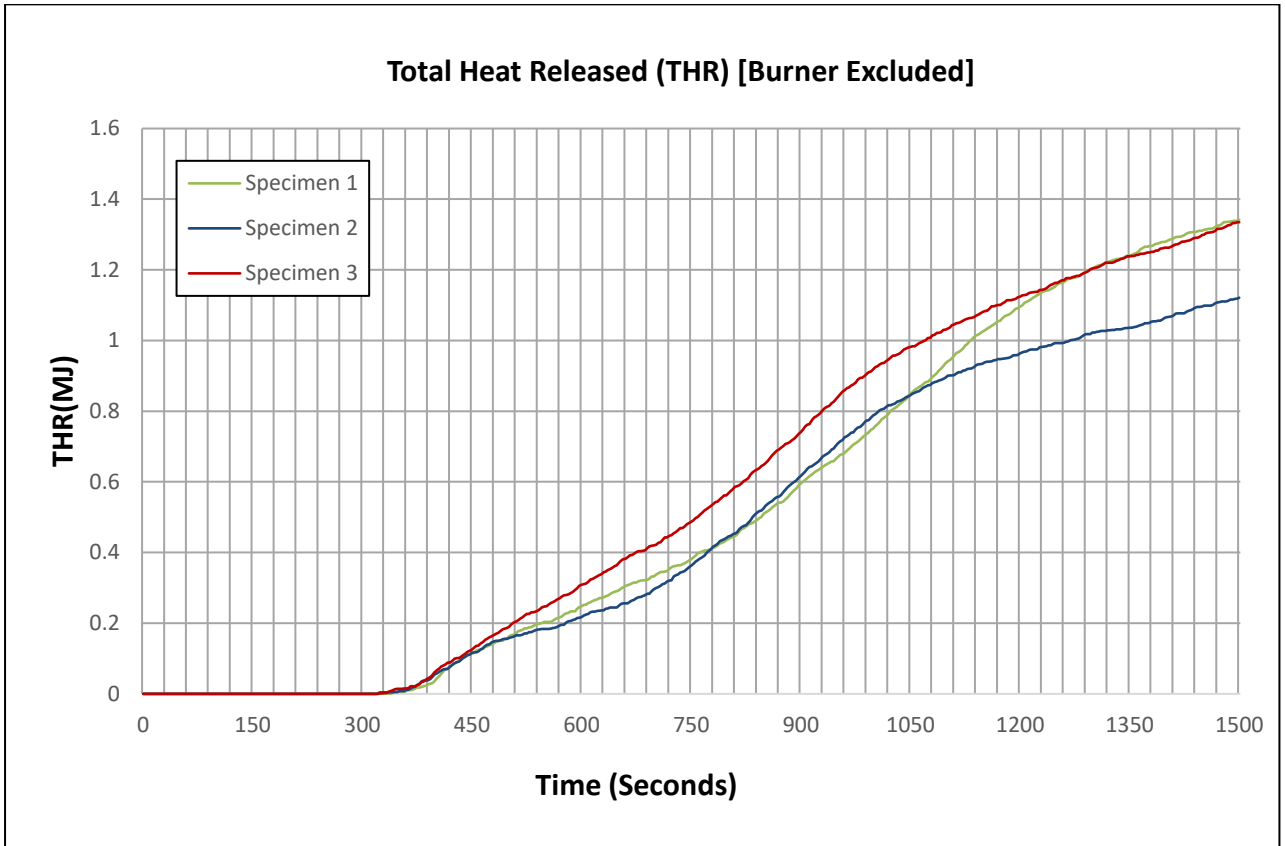
Reviewed and Authorized by:

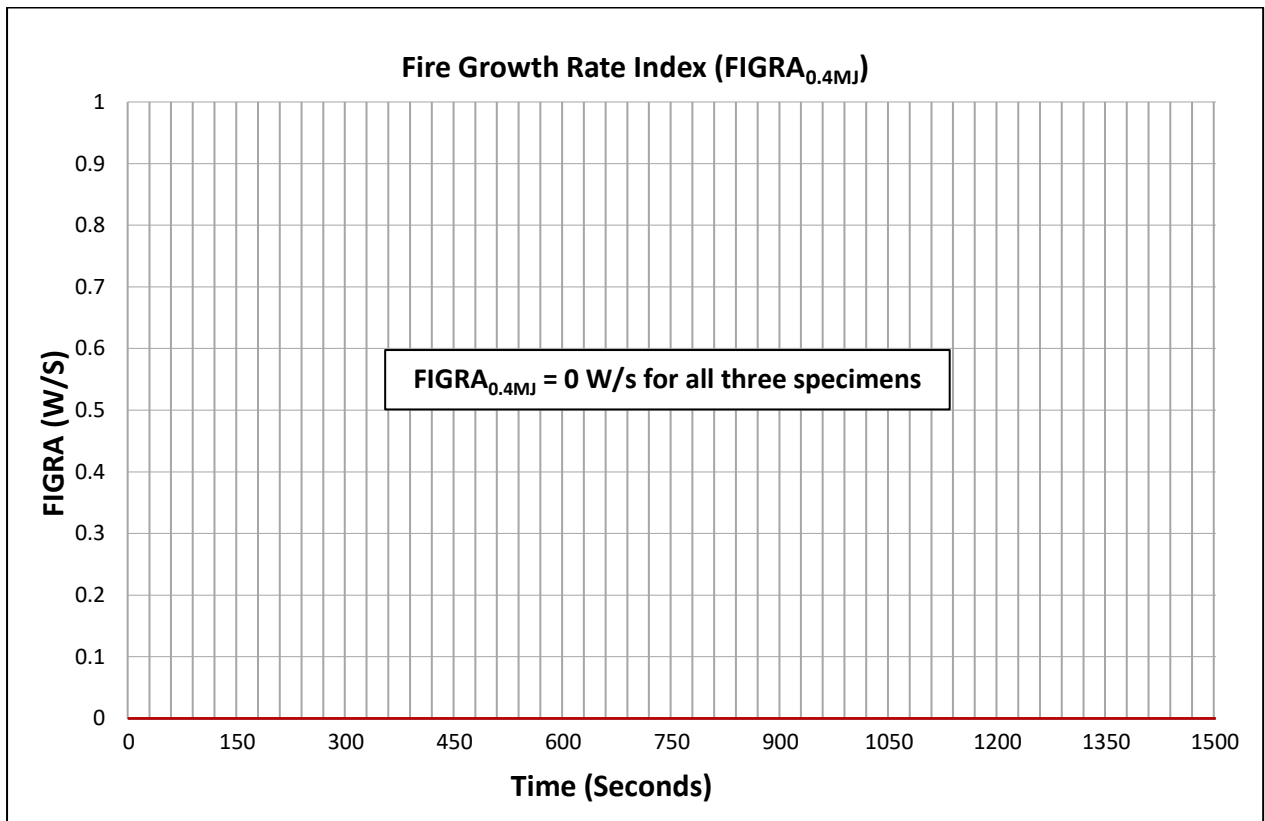
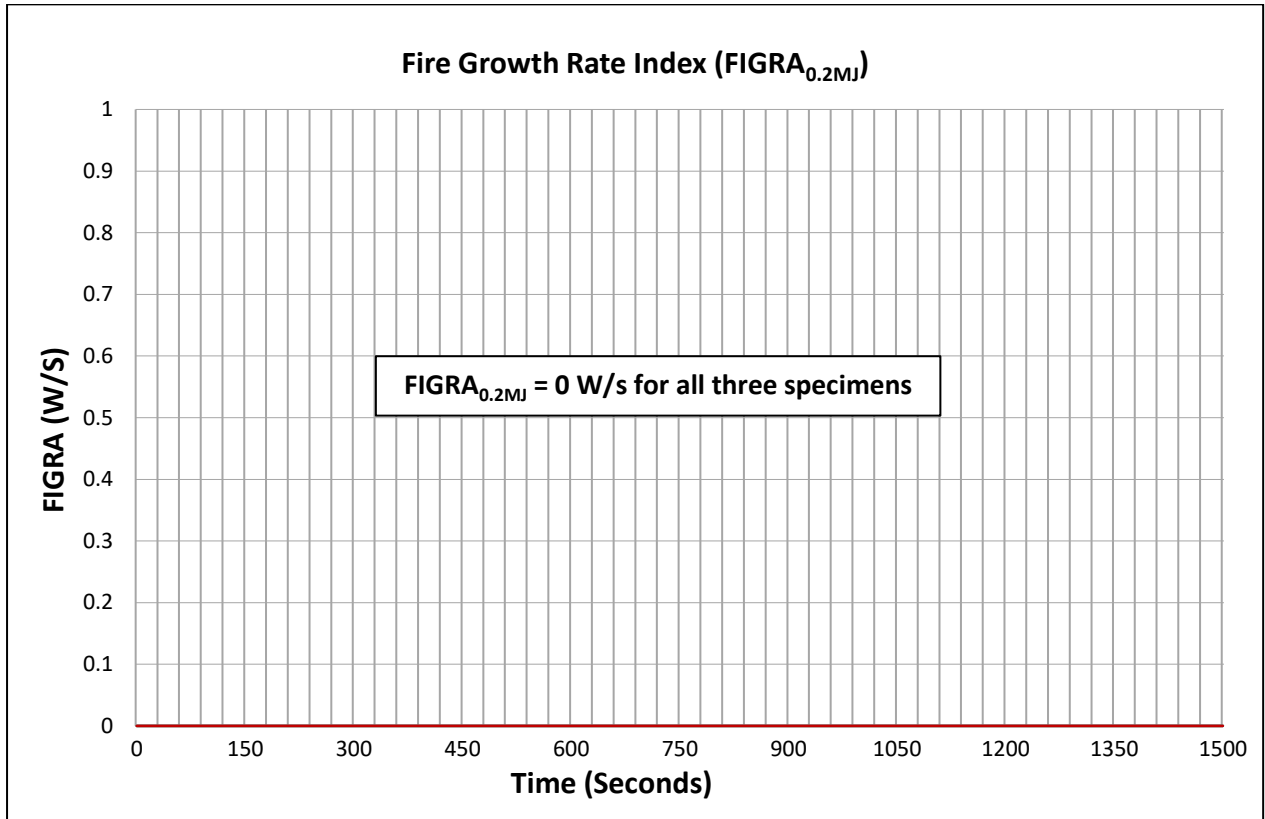
Suketa Tyagi
Manager - Reaction to Fire

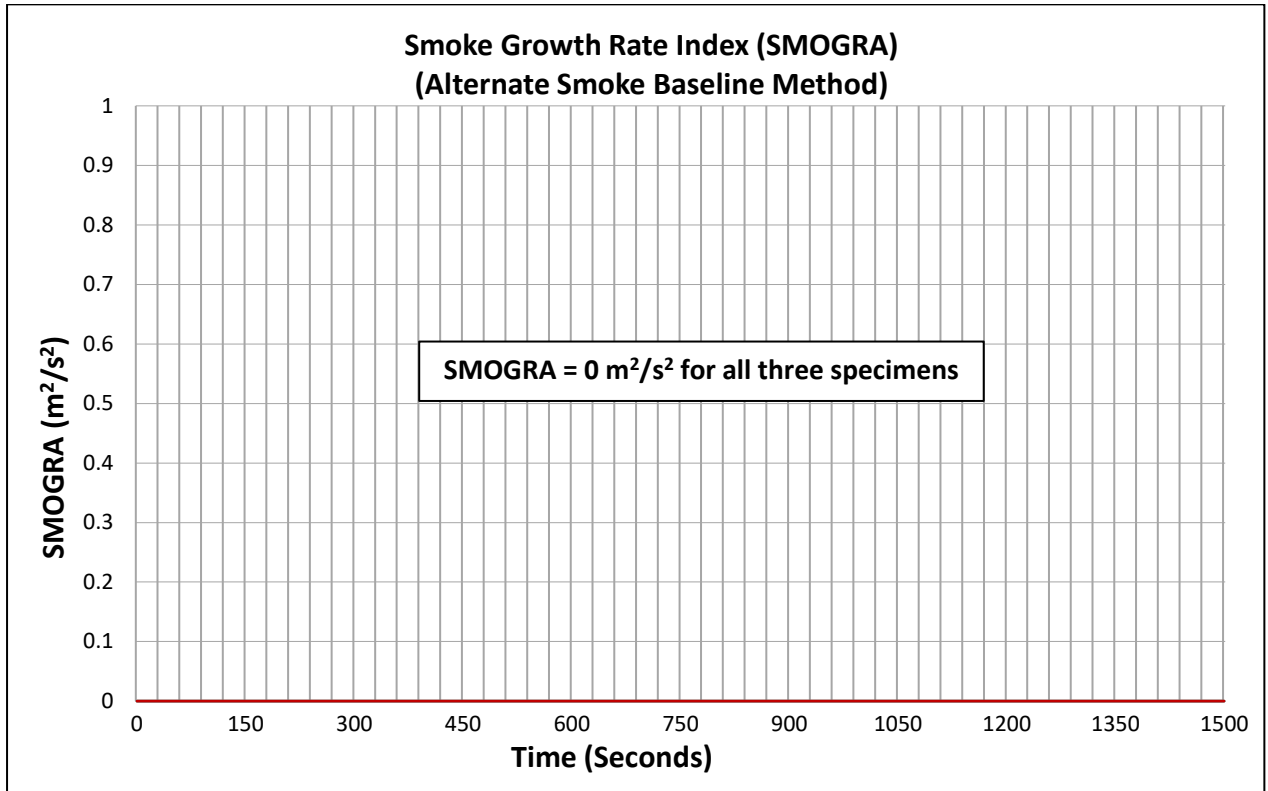


12. APPENDIX 1- GRAPHS











13. APPENDIX 2- PHOTOS

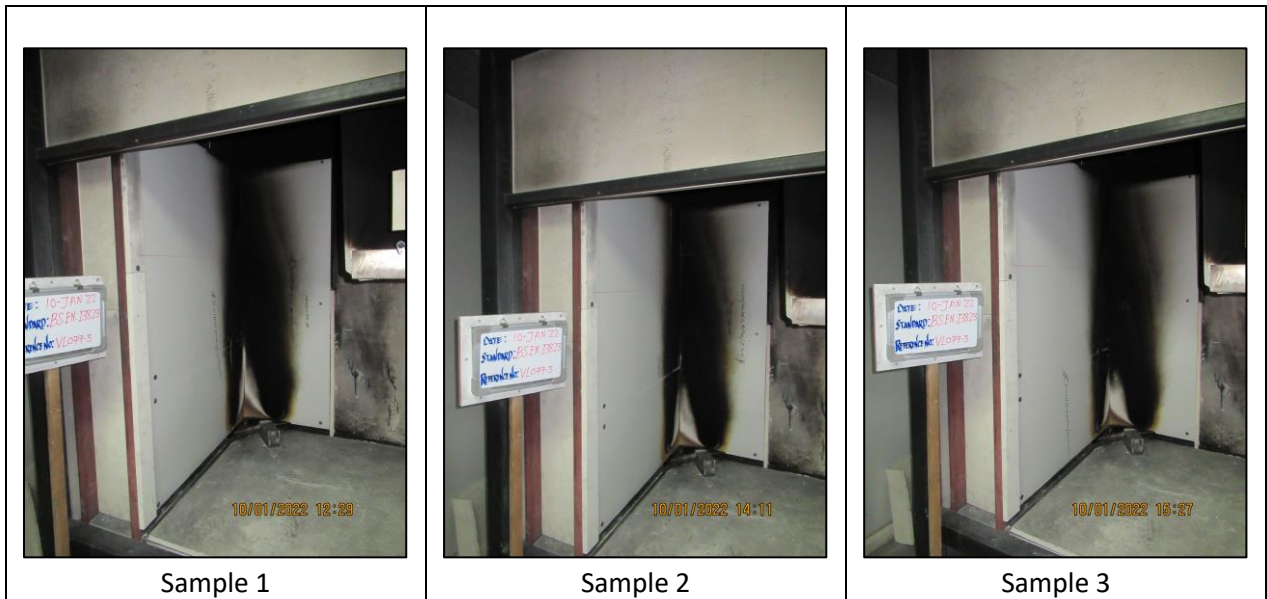


Sample 1

Sample 2

Sample 3

Specimen before the test



Sample 1

Sample 2

Sample 3

Specimen after the test

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