ICC EVALUATION SERVICE®

ICC-ES TEST REPORT

ASTM E84-24

RENDERED TO: Ambient Building Products, Inc.
8320 Preston Ct Ste C
Jessup, MD 20794

PRODUCT: ***Mag Panel MgO Board***

Report No.: ABPI101524-92
Test Date(s): 10/30/2024
Report Date: 11/01/2024
Pages: 11

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1.0 General Information

1.1 Product

Mag Panel MgO Board

1.2 Project Summary

ICC-ES was contracted by Ambient Building Products, Inc. to evaluate Mag Panel MgO Board in accordance with ASTM E84-24. Results obtained are tested values and were secured by using the designated test method(s). Testing was conducted at ICC-ES's facility in Bryan, TX.

1.3 Product Description

ASTM E84-24

Product Name:	**Mag Panel MgO Board**
Product type:	**MgO Board**
Product Use:	**Interior**
Model Name/Sample Number:	**Sample 1**
Sample Description:	**(3) ½-in x 24-in x 96-in**
Color:	**White**
Sample Length:	**288-in**
Sample Width:	**24-in**
Thickness:	**½-in**
Total Weight:	**112.5 lbs.**
Sample Received Date:	**10/24/2024**
Days in Conditioning:	**6**

1.4 Qualifications

ICC-ES in Bryan, TX has demonstrated compliance with ISO/IEC 17025 and is consequently accredited as a Testing Laboratory. ICC-ES is accredited to perform all testing reported herein.

1.5 Product Sampling

No evidence was provided that a third-party agency sampled materials for the testing reported herein. All test specimens were supplied by Ambient Building Products, Inc.. As needed, ICC-ES provided commonly-available construction materials and assembled each specimen to the client's specifications, and where applicable, average quality lumber was used in the construction of specimens.

1.6 Witnessing

No representative of Ambient Building Products, Inc. witnessed the testing reported herein.

1.7 Conditions of Testing

Unless otherwise indicated, all testing reported herein was conducted in a laboratory set to maintain temperature in the range of 65-80°F and humidity in the range of 45-60% RH. All test specimen materials were stored in the laboratory conditioning room of 73.4 ± 5°F and at a relative humidity of 50 ± 5% environment for no less than 24 hours prior to testing. The test specimens were conditioned for **6** days and obtained steady state.

2.0 Referenced Standards

ASTM E84-24 Standard Test Method for Surface Burning Characteristics of Building Materials.

3.0 Summary of Results

Flame Spread Index – 0

Smoke Developed Index – 5

3.1 General

This fire-test–response standard for the comparative surface burning behavior of building materials is applicable to exposed surfaces such as walls and ceilings. This standard is used to measure and describe the response of materials, products, or assemblies to heat and flame under controlled conditions, but does not by itself incorporate all factors required for fire-hazard or fire-risk assessment of the materials, products, or assemblies under actual fire conditions.

3.2 Test Specimens

The samples submitted by the manufacturer was identified as Mag Panel MgO Board and was supplied in the form of (3) ½-in x 24-in x 96-in. They were received without damage.

3.3 Test Setup and Procedure

The product(s) were setup and evaluated in accordance with ASTM E84-24.

Substrate Used:	**N/A**
Mounting Method:	**Standard**
Support Used:	**N/A**
Side Exposed:	**Smooth Side**
Adhesive Used & Coverage Rate (if Applicable):	**N/A**
Cement Board Used to Cover Sample (Y/N):	**Yes**
Sample Continuous or Sectioned:	**Sectioned**
No. & Size of Sections:	**(3) ½-in x 24-in x 96-in**
Lab Ambient Temp (°F):	**74**
Lab Ambient RH (%):	**64**
Date Tested:	**10/30/2024**

3.4 Test Results

TEST DATA

Time to Ignition (mm/ss):	00:00
Maximum Flame Spread (ft):	0.000
Time to Max Flame Spread (mm/ss):	00:00
Maximum Temperature (°F):	532
Time to Max Temperature (mm/ss):	09:53
Total Fuel Burned (cubic feet):	44.684
Flame Spread*Time Area (ft*min):	0.000
Smoke Area (%A*min):	4.837
Unrounded FSI:	0.000
Unrounded SDI:	7.270

TEST OBSERVATIONS

05:17	Observed discoloration
08:00	Observed discoloration increase

POST-TEST OBSERVATIONS

0 – 8 ft	Section had cracking and discoloration
8 – 16 ft	Section had little discoloration
16 – 24 ft	Section had little discoloration

Analysis on Classification Criteria

Based on Flame Spread Index and Smoke Developed Index when tested in accordance with ASTM E84 or UL 723. Three classes of interior finish are specified by the International Building Code (IBC) that describes a set of classification criteria required for interior wall and ceiling finish materials. The classification criteria for all three model codes is the same: ASTM E84 and UL 723 do not include classification criteria for the results obtained from testing.

Class	Flame Spread Index	Smoke Developed Index
A	0-25	0-450
B	26-75	0-450
C	76-200	0-450

4.0 Closing Statement

This report contains only findings and results arrived at after employing the specific test procedures listed herein. It does not constitute a recommendation for, endorsement of, or certification of the product or material tested. Unless differently required, ICC-ES reports apply the "Simple Acceptance" rule, also called "Shared Risk approach", of ILAC-G8:09/2019, Guidelines on Decision Rules and Statements of Conformity. ICC-ES makes no warranty, expressed or implied, except that the test has been performed, and a report prepared, based upon the specimen specified by the client. Extrapolation of data, from the test data provided herein, to the batch or lot from which the specimens were obtained may not correlate and should be interpreted with extreme caution. ICC-ES assumes no responsibility for variations in quality, composition, appearance, performance, or other features of similar materials produced by the client, other persons, or under conditions over which ICC-ES has no control. ICC-ES has issued this report for the exclusive use of the client to whom it is addressed. Any use or duplication of this report shall not be made without their consent. This report shall only be reproduced in its entirety.

For ICC-ES, LLC:

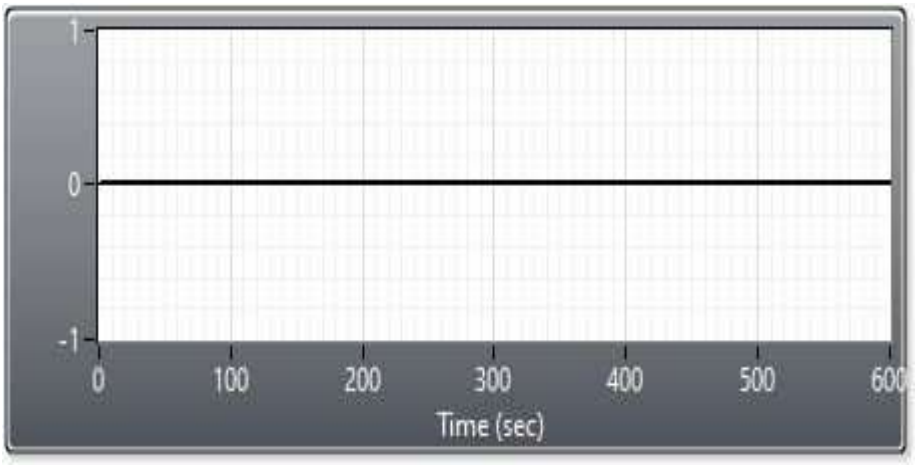
Brent Mynar

Tested by: Brent Mynar 11/01/2024
Project Manager

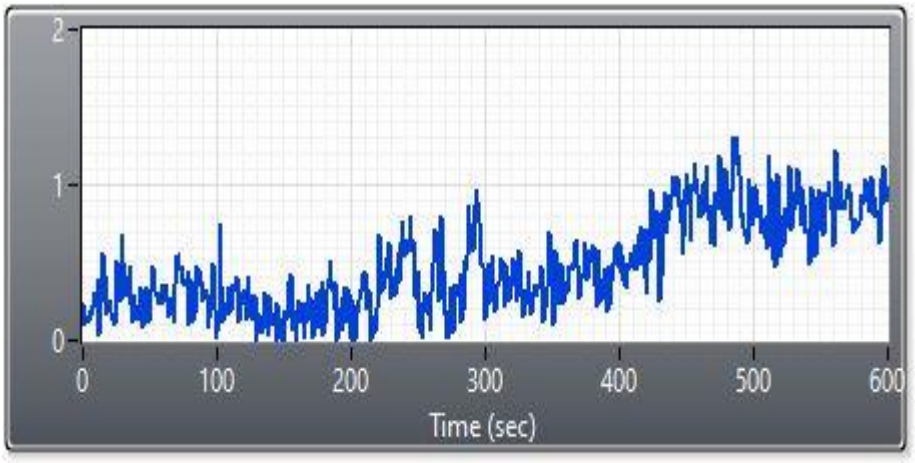
Gabriel Parra

Reviewed by: Gabriel Parra 11/01/2024
Project Engineer

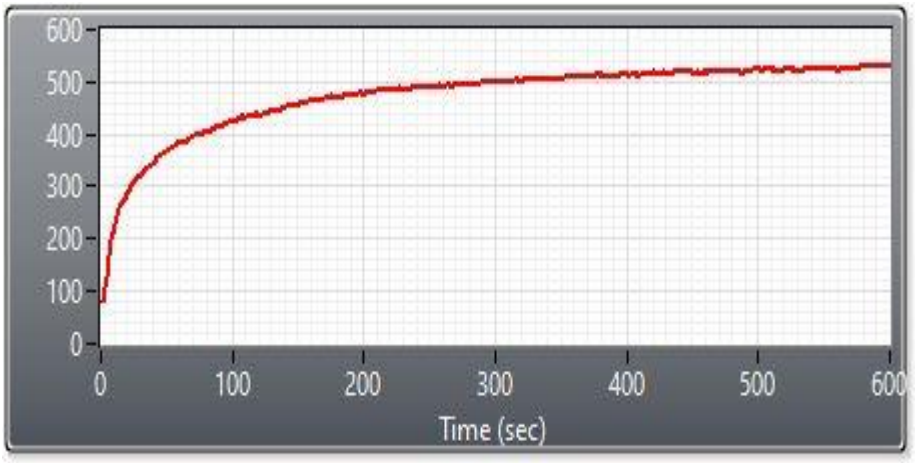
FLAME SPREAD



SMOKE (%A)



TEMPERATURE



Appendix B - Photographs

Photo No. 1
Sample Marking

Photo No. 2
Pre-Test Exposed Side

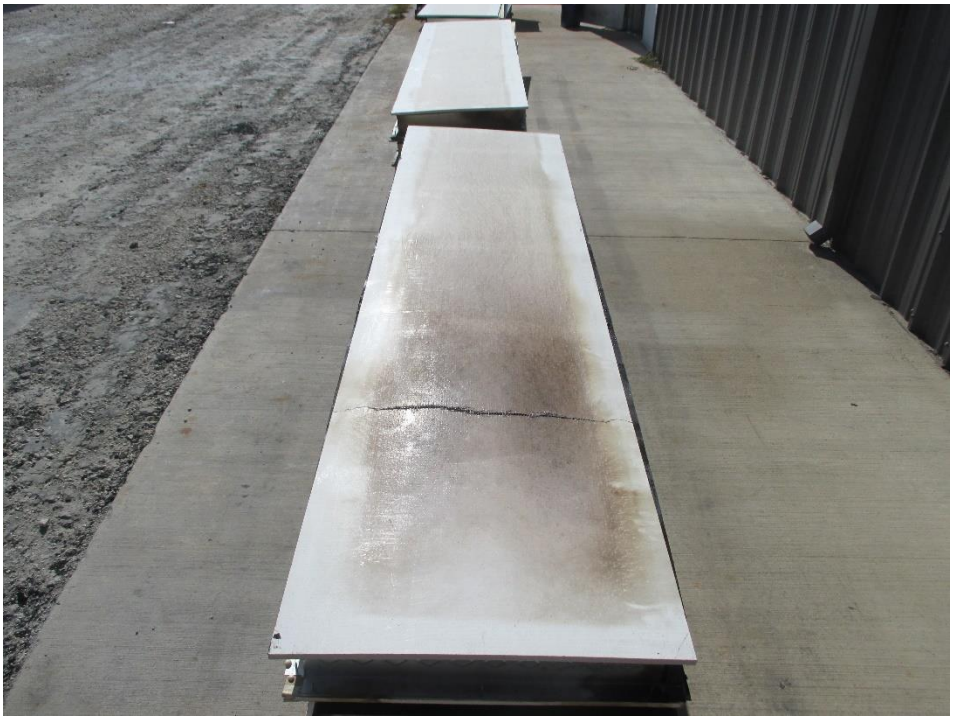


Photo No. 3
Post-Test Exposed Side

Photo No. 4
Post-Test Exposed Side (Continued)

Appendix C - Revision Log

Rev. #	Date	Page(s)	Revision(s)
0	11/01/2024	N/A	Original report issue