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**EVALUATION OF "MODEL PAN" BOARD MATERIAL
FOR FALLING BALL IMPACT RESISTANCE
IN ACCORDANCE WITH ICC-ES AC308 (FEB 2016), SECTION 3.1.8**

A Report to:

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1.0 INTRODUCTION

At the request of Ak Alev Manyezit Levha Uretim San. Ve Tic. A.S., Exova was retained to evaluate a cement / gypsum board type material for falling ball impact resistance properties in accordance with ICC-ES AC 386 (Feb 2016), "Acceptance Criteria for Fiber Reinforced Magnesium-Oxide-Based Sheets", Section 3.1.8, referencing ASTM D1037 test method.

Upon receipt, the sample was assigned the following Exova Sample No.:

| Client Sample Identification | Exova Sample No. |
|--|------------------|
| "Modelpan" a fire protective glass fiber reinforced magnesium-oxide board Board size: 8' x 4' x 1/2" (nominal) | 16-06-P0117-FB |

2.0 PROCEDURE

The sample was tested using the following sections ICC-ES AC386:

| Test Description | AC 386, Section | Referenced Test Method |
|---------------------|-----------------|------------------------|
| Falling ball impact | 3.1.8 | ASTM D1037, Section 12 |

3.0 RESULTS

A summary of test results is presented in Table 1. Detailed test results are shown in Appendix A. SI units are the primary units of measure.

| Result Table 1 – Falling Ball Impact Resistance Test Result Summary Evaluated against ICC-ES AC386 (Feb 2016) requirement Exova Sample No.: 16-06-P0117 – FB | | | |
|---|--------------------|---------------|----------------|
| Test Description | Requirement | Result | Comment |
| Falling ball impact, observation | No damage | None | Pass |

4.0 CONCLUSIONS

The "Modelpan" material submitted by *Ak Alev Manyezit Levha Uretim San. Ve Tic. A.S.*, has met the falling ball impact resistance testing requirement set by ICC –ES AC 386, Section 3.1.8, when tested as described in this report.

5.0 REVISION HISTORY

| Date: | Revision: | Comments: |
|--------------|-------------------|---------------------------------------|
| 2016-12-12 | Original Document | N/A |
| 2016-12-28 | 1 | "Modelplan" is replaced by "Modelpan" |

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APPENDIX A

Detailed Test Results: Falling Ball Impact Resistance
Applicable Standard: ICC-ES AC 386, Section 3.1.8, referencing ASTM D1037, Section 12
(1 page)

A1 FALLING BALL IMPACT

Method ICC-ES AC 386, Section 3.1.8, ASTM D1037, Section 12

Test Date: 2016-05-30
Height: 12 inch (fixed)
Ball Diameter: 2 inch (steel)
Test Conditions: 23°C; 50% RH
Wt. Balance : MII# B12518
Calipers: MII# B10643
Environ. Controller: MII# A11356

Table A1 – Falling Ball Impact
ASTM D1037, Section 12
Exova Sample No.: 16-06-P0117-FB

| Specimen No. | Observation after Impact |
|---------------------|--------------------------|
| Board 1, Specimen 1 | No damage |
| Board 2, Specimen 2 | No damage |
| Board 3, Specimen 3 | No damage |
| Board 4, Specimen 4 | No damage |
| Board 5, Specimen 5 | No damage |
| Average | - |