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**EVALUATION OF “MODEL PAN” BOARD MATERIAL
FOR WATER ABSORPTION PROPERTIES
IN ACCORDANCE WITH ICC-ES AC308 (FEB 2016), SECTION 3.1.5**

A Report to: **Ak Alev Manyezit Levha Üretim San. ve Tic. A.Ş.**
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3 pages, 1 appendix

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1.0 INTRODUCTION

At the request of Ak Alev Manyezit Levha Üretim San. ve Tic. A.Ş., Exova was retained to evaluate a cement / gypsum board type material for water absorption properties in accordance with ICC-ES AC 386 (Feb 2016), "Acceptance Criteria for Fiber Reinforced Magnesium-Oxide-Based Sheet", Section 3.1.5 referencing ASTM C1185 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-WA

2.0 PROCEDURE

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

Test Description	AC 386, Section	Referenced Test Method
Water Absorption	3.1.5	ASTM C1185, Section 9

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 – Water Absorption Test Result Summary Evaluated against ICC-ES AC386 (Feb 2016) requirement Exova Sample No.: 16-06-P0117 – WA			
Test Description	Requirement	Result	Comment
Water Absorption, %	-	26.25	No comment

4.0 CONCLUSIONS

The "Modelpan" material submitted by *Ak Alev Manyezit Levha Üretim San. ve Tic. A.Ş.*, has absorbed 26.25% water when tested as described in this report, set by ICC –ES AC 386, Section 3.1.5.

5.0 REVISION HISTORY

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

Reported by:



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APPENDIX A

Detailed Test Results: Water Absorption
Applicable Standard: ICC ES AC 386, Section 3.1.5, Referencing ASTM C1185, Section 9
(1 page)

A1 WATER ABSORPTION

Method	ICC-ES AC 386, Section 3.1.5, referencing ASTM C1185, Section 9	
Specimen Dimensions	100 mm × 100 mm × 12.5 mm (nominal)	
No. of Specimens	6	
Pre Conditioning	24 hours at 90°C followed by desiccant drying until constant mass	
Exposure	48 hours under 1" head of water Water temperature 21-23°C	MII# B10864
Measurement Equipment	Mitutoyo® digital callipers AccuSplit® digital timer Environmental controller Wt. Balance	MII# B13123 MII# B10672 MII# A11356 MII#B12518
Test Date	2016-05-30 to 2016-06-02	

Table A1 – Water Absorption ASTM C1185, Section 9 Exova Sample No.: 16-06-P0117				
Specimen No.	Volume, cm ³	Mass, g		Water Abs., vol. %
		Initial	Final	
Board -1	125	124.64	153.90	23.41
Board -1	125	124.29	153.61	23.46
	-	-	-	23.53
Board -2	125	122.17	153.30	24.90
Board -2	125	112.17	151.98	31.85
	-	-	-	30.27
Board -3	125	122.90	153.79	24.71
Board-3	125	122.94	153.41	24.38
	-	-	-	24.96
Avg.	-	-	-	26.25