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**CERTIFICATE OF APPROVAL**  
**No ME 5085**

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**ALUDECOR LAMINATION PVT. LTD.**

**Suite No. 52, 5<sup>th</sup> Floor, Martin Burn Building, 1 RN Mukherjee Road,  
Kolkata- 700001 (West Bengal), India  
Tel: +91 33 40276600**

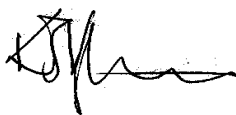
Have been assessed against the requirements of the test standard(s)  
denoted below and are approved for use subject to the conditions  
appended hereto:

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**CERTIFIED PRODUCT**  
**“ALUDECOR- Firewall”**

**TEST STANDARD**  
**EN 13501-1**

**Signed and sealed for and on behalf of Exova (UK) Limited trading as  
Warrington Certification**



**Sir Ken Knight**  
**Chairman**  
**Impartiality Committee**



**Paul Duggan**  
**Certification Manager**



Issued: 27<sup>th</sup> January 2017  
Valid to: 26<sup>th</sup> January 2022

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## CERTIFICATE No ME 5085 ALUDECOR LAMINATION PVT. LTD.

### Approved Manufacturing Location

**Aludecor Lamination Pvt. Ltd.**  
Plt No. 31 A, Sector-11, II-E  
Sidcul, Ranipur, Bhel, Haridwar,  
Uttarakhand-249403  
India

### Certification Evidence

#### Certification Evidence

1. This certificate relates to the reaction to fire classification of the product "ALUDECOR-Firewall" a coated fire rated aluminium composite panel, when tested and classified in accordance with EN 13501-1: 2009, "Fire classification of construction products and building elements —Part 1: Classification using data from reaction to fire tests".
2. The certification is issued on the basis of:
  - i) Initial type testing of a sampled test specimen. Sampling conducted during FPC audit on the 28<sup>th</sup> November 2016
  - ii) Inspection and surveillance of factory production control
  - iii) Certification of Quality Management Systems to ISO 9001:2008

Initial Type Testing evidence listed in the table:

Name of Laboratory	Name of sponsor	Test report Nos.	Test method
Exova warringtonfire	Aludecor Lamination Pvt. Ltd	WF 377553, WF 377551, WF 377550, WF 377549	EN 13823
		WF 377543	EN ISO 11925-2
		WF 378709	EN/TS 15117
		WF 378710	EN 13501-1

3. The products are composite panels, having an overall thickness of 4mm and a weight per unit area of 7.6kg/m<sup>2</sup>. The panels have a top & bottom coil thickness 0.5mm and a 3mm thick Magnesium Di Hydroxide core. A more detailed product description is given at the end of this document.
4. The test results are only valid for the tested product composition and specimen configuration, as described in section 4.3 Field of application of the classification report.
5. The test and classification results on test are reported in Exova Warringtonfire Classification Report No. WF 378710.

## CERTIFICATE No ME 5085 ALUDECOR LAMINATION PVT. LTD.

### Product performance

Reaction to fire classification: B-s1, d0, to EN 13501-1

### Product information

General description		A coated fire rated aluminium composite panel
Product reference		"ALUDECOR- Firewall"
Name of manufacturer		Aludecor Lamination Pvt. Ltd.
Thickness		4mm (stated by sponsor)
Weight per unit area		7.6kg/m <sup>2</sup> (stated by sponsor) 8.0kg/m <sup>2</sup> (determined by <b>Exova Warringtonfire</b> )
Product configuration		<ul style="list-style-type: none"> <li>• Top coat (test face)</li> <li>• First coat</li> <li>• Aluminium</li> <li>• Adhesive</li> <li>• Core</li> <li>• Adhesive</li> <li>• Aluminium</li> <li>• Service coat (reverse face)</li> </ul>
Top coat (test face)	Generic type	Polyvinylidene fluoride (PVDF)
	Product reference	(dependant on colour)
	Name of manufacturer	PPG / Nippon (dependant on colour)
	Colour reference	Any colour
	Number of coats	One or two (dependant on colour)
	Application rate per coat	25-30g/m <sup>2</sup> (dependant on colour)
	Density	1.21-1.25kg/l (dependant on colour)
	Application method	Coil coating
	Curing process per coat	Conventional oven
Flame retardant details		<b>See Note 1 below</b>

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## CERTIFICATE No ME 5085 ALUDECOR LAMINATION PVT. LTD.

First coat	Generic type	PU / PVDF (dependant on colour)
	Product reference	"PU Primer" / "PVDF Primer"
	Name of manufacturer	PPG / Nippon
	Colour reference	"Yellow"
	Number of coats	One
	Application rate per coat	5.7-6.2g/m <sup>2</sup> (dependant on colour)
	Density	1.14-1.24kg/l (dependant on colour)
	Application method	Coil coating
	Curing process per coat	Conventional oven
	Flame retardant details	<b>See Note 1 below</b>
Aluminium	Generic type	Mill finish aluminium coil
	Product reference	"AA3105" or "AA5005" (dependant on colour)
	Detailed description / composition details	Manganese alloy for architectural usage
	Name of manufacturer	Hindalco
	Thickness	0.5mm
	Weight per unit area	2.7-2.72kg/m <sup>2</sup> (dependant on colour)
	Colour reference	"Mill Finish"
	Flame retardant details	This component is inherently flame retardant
Adhesive	Generic type	Low density polyethylene and ethylene acrylate polymer mix
	Product reference	"FR Adhesive Film"
	Name of manufacturer	Ecoplast Ltd.
	Colour reference	"Semi-Translucent"
	Application rate	65g/m <sup>2</sup>
	Application method	Hot roll lamination
	Flame retardant details	<b>See Note 1 below</b>
Curing process	<b>See Note 1 below</b>	
Core	Generic type	Magnesium Di Hydroxide
	Product reference	"FR-D"
	Detailed description / composition details	72% Inorganic content (Magnesium Di Hydroxide). Remaining content is organic.
	Name of manufacturer	Aludecor Lamination Pvt. Ltd.
	Thickness	3mm
	Weight per unit area	1.60kg/m <sup>2</sup>
	Colour reference	"Off White"
	Trade name of flame retardant	"MDH"
	Generic type of flame retardant	Magnesium Di Hydroxide
Amount of flame retardant	72%	

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## CERTIFICATE No ME 5085 ALUDECOR LAMINATION PVT. LTD.

Service coat (reverse face)	Generic type	Polyester service coat
	Product reference	"Polyester"
	Name of manufacturer	PPG
	Colour reference	"Gray"
	Number of coats	One
	Application rate per coat	8.82-8.33g/m <sup>2</sup> (dependant on colour)
	Density	1.19-1.26kg/l (dependant on colour)
	Application method	Coil coating
	Curing process per coat	Conventional oven
Flame retardant details	<b>See Note 1 below</b>	
Mounting and fixing details	The specimens were tested with an 80mm air space between them and the calcium silicate board substrate	
Brief description of manufacturing process	There are three processes involved in the production of aluminium composite panel. 1. Pre treatment of aluminium coil 2. Aluminium coil colour coating 3. Lamination of colour coated aluminium coil with fire rated core	

Note 1: The sponsor was unable to provide this information.

### Information:

1. The performance relates only to the behaviour of the specimen of the product under the particular conditions of test. They are not intended to be the sole criterion for assessing the potential smoke obscuration or fire hazard of the product in use, nor do they reflect the actual behaviour of the product under real fire conditions.
2. It is the responsibility of the user of the information contained within this document to establish appropriate safety and health practices and determine the applicability of regulatory requirements prior to use of the product.
3. The performance relates only to the specimens of the product in the form in which they were tested.
4. The approval relates to on-going production. Panel product and/or its immediate packaging shall be identified with the certification mark including the certification number, and the manufacturer's name and the product name or code reference.