

A decorative graphic in the top right corner consisting of overlapping geometric shapes in orange, red, and black.

HYNADecorTM

ALUMINIUM COMPOSITE PANELS

Version 1.0

ABOUT COMPANY

HYNADECOR is one of the leading manufacturers of Aluminium composite panels (ACP) in India. HYNADECOR, an ISO 9001:2015, ISO 14001:2015 & OHSAS 18001:2007 certified company was set up since 2013 in New Delhi. We are manufacturing aluminium composite panels (ACP) under the brand name of “HYNADECOR”. Our manufacturing facilities are located at Sonipat in Haryana and it's spreading in an area of 8093 SqMtr. We have a fully automatic high tech FR grade ACP manufacturing compatible machine and has an integrated infrastructure as well as a talented pool of professionals operate it. The production capacity is approx. 1, 44, 000, 00 Square fts per annum. The plant is equipped with all safety measures and generator to ensure uninterrupted production. We have in house all raw materials facilities as well as quality check labs to maintain highest international standards and where quality endurance tests are conducted as per ASTM Standards.

We have India's first a fully automatic high tech fire retardant ACP manufacturing compatible machine and it's specialize in manufacturing fire retardant aluminium composite material with international standards. We tend to implement best practices and also invent new practices as to stay above the rest in the manufacturing sectors. The main parameters which determine HYNADECOR FR are quality, cost effective, flexibility and innovation. It's used to be very difficult to extrude mineral-filled core, but our advanced technology has enabled us to produce HYNADECOR (FR) as efficient as ordinary core materials. It is green material, as there is no harmful burning.

HYNADECOR FR grade meet the highest requirements of the fire regulations and is therefore the ideal material for all areas where fire protection plays an important role— be it for high-rise or industrial buildings, public buildings, hospitals, hotels, tunnels or underground stations. Furthermore, with its proven product and processing properties, HYNADECOR FR grade aluminium composite panels offer architects designers' unlimited opportunities for realizing their ideas.

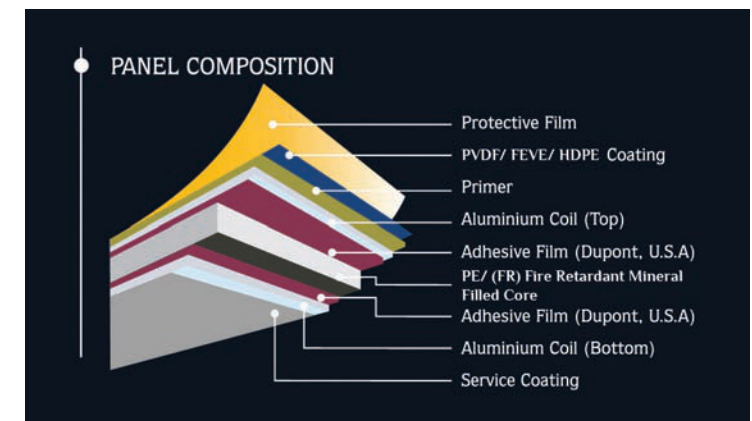
We are also committed to innovation in designing building products....

PANEL DIMENSIONS

Al. Skin Thickness	0.25mm to .5mm	STANDARD SIZES	1220 mm x 3660 mm
Thickness	2mm to 6mm		1220 mm x 3050 mm
Coating	PVDF		1220 mm x 2440 mm
Length	Upon Request		
Width	1220mm		

PRODUCT TOLERANCE

Width	0/±4.0mm
Length	0/±6.0mm
Thickness	4mm thick ±0.2mm
Bow	0.5% of length & Width
Squareness	Max 5.0mm

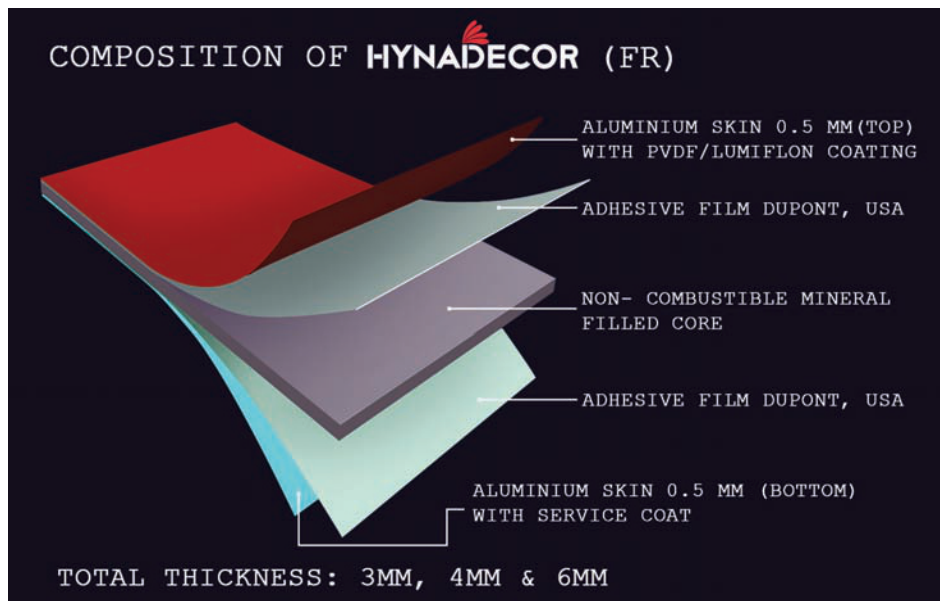




**HYNADecor**TM
ALUMINIUM COMPOSITE PANELS

Hynadecor (FR) is an Aluminum Composite Material (ACM) for exterior cladding. It's composed of core material and aluminum skins. The core material contains a non-combustible mineral and small content of thermoplastic, which ensures high performance of fire safety of this material. The skin is 0.5mm thick aluminum of 3005 H-16. The surface is finished with high-performance PVDF/Lumilon-based paint and the back is a service coating. We use high-performance PVDF/Lumilon-based fluorocarbon paint for the surface coating, ensuring both high durability and consistent coating quality. PVDF/Lumilon-based fluorocarbon coating has a coating warranty of 10 years.

The greatest concern in external cladding is upward flaming over a vertical exterior wall, particularly in high-rise buildings. Various types of fire tests are required to examine the fire performance and non-combustibility of building materials. HYNADecor (FR) not only passes all tests, but it is also certified to meet NBC for external cladding without any height restrictions.



GENERAL SPECIFICATION

DIMENSIONS	MEASUREMENT	
Thickness	3mm, 4mm, 5mm, 6mm (±0.2mm)	
Width	1200mm (±2mm)	
Length	Less than 6000mm (±4mm)	
Bow	Max 0.5% of any dimensions	
Diagonal Lines Difference	Max 5mm	
PHYSICAL PROPERTIES	STANDARD	MEASUREMENT
Panel Weight	ASTM D-792	3MM=4.6 Kg/m ²
4MM=5.5 Kg/m ²		
Thermal Expansion	ASTM D-696	3X10 ⁻⁵ /°C
Thermal Conductivity (4mm)	ASTM D-976	0.39Kcal/M.hr.°C
Deformation temperature	ASTM D-648	115°C
MECHANICAL PROPERTIES	STANDARD	MEASUREMENT
Tensile Strength	ASTM D-638	49MPa
Yield Strength	ASTM D-638	44MPa
Bending Strength	ASTM C-393	
120MPa(4mm)		
Flexural Elasticity	ASTM C-393	2.6X10 ⁴ (4mm)
Shearing Strength	ASTM D-732	33MPa
Penetrating Resistance	ASTM D-732	11 kN
Adhesive Peel of Strength	ASTM D-903	10N/MM
Wind Pressure resistance	ASTM E-330	Passed
Resistance against water	ASTM E-331	Passed
Resistance against air	ASTM E-283	Passed

Test Certificates

SHIRAM INSTITUTE FOR INDUSTRIAL RESEARCH
(A unit of Shiram Scientific and Industrial Research Foundation)
18, University Road, Delhi - 110007 (India) Website: www.shiramresearch.org
AN ISO - 9001, 14001 & OHSAS 18001 Certified Institute E-mail: icustomercare@shiramresearch.org

TEST CERTIFICATE NO.: C10000122520

Issued To: Client Code: 62346
SOMA PLASTIC (P) LTD
3RD & 4TH FLOOR
D.S.C. BLOCK
COMMUNITY CENTRE
NAKHA VILLAR
NEW DELHI
DELHI - 110005
Khat Amb. MR. R. S. KHANNA
Sample Description: ONE SAMPLE DESCRIBED AS HYNADecor ALUMINIUM COMPOSITE PANEL.
ONE SAMPLE DESCRIBED AS 100-419 GLAZE WHITE, WAS RECEIVED.
The sample was not carried out by Shiram Institute for Industrial Research. The sample details provided in the test certificate are based on the declaration by the party.

TEST RESULTS

S.No	Test	Results	Protocol Adopted/ Instrument Used
A.	ALUMINIUM COMPOSITE PANEL		
1.	Tensile Strength, MPa	39	ASTM E836M -15a
2.	Yield Strength (0.2 % Proof), MPa	34	ASTM E836M -15a
3.	Elongation, %	4	ASTM E836M -15a
4.	Heat Deflection Temperature, °C	More than 180	ASTM D 648-15
5.	Panel Dimensions, mm		Calibrated measuring Scale
(a) Length	100		
(b) Width	100		
6.	Panel Weight, g/m²	7.4	Calibrated Weighing Balance
7.	Composition of core Foil/Transformer Infrared Spectroscopy (FTIR)	Spectra attached	
8.	Finish coat thickness, mm	24	ASTM D 7091-13
(a) Top	3		
(b) Bottom			
9.	Chemical Resistance (a) 10% HCl for 30 minutes (b) 10% HNO3 for 30 minutes (c) 10% H2SO4 for 72 hrs (d) Mortar for 24 hrs	No colour change observed. No colour change observed. No colour change observed. No visual change observed.	AMMA 2005-03

TEST REPORT COMPILED BY: *MD Ghazvati*
TEST REPORT VERIFIED BY: *MD Ghazvati*
TEST REPORT APPROVED BY: *MD Ghazvati*
DEPUTY GENERAL MANAGER

Phone: 91-11-27672767, 27672667, 27672667 Fax: 91-11-27672767, 27672767

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03/03/2018

TEST REPORT
Customer's Name: SONIA PLASTICS PVT. LTD.
Service requirement: Testing of material for Flammability as per IS: 15061-2002
Class 3.2, Annex. A & Clause 3.3, Annex. B, Clause 3.4 Annex. C.

1.8 Sample Details as submitted by customer:
Material Manufacturer's Name: SONIA PLASTICS PVT. LTD.
Material Grade: NA
Material Type: Aluminium Composite Panel
Component Part No. and Batch No.: RD-018 GLAZE WHITE
Identification Code: NA
Drawing No.: NA
Date of Testing: 2.3.18

2.0 Horizontal Burning Rate Test as per IS: 15061-2002, Clause 3.2 and Annex A

2.1 Observation Table: The sample under test is Integrit.

No.	Test Description	Specified Requirement	Observations				
			Test Piece 1	Test Piece 2	Test Piece 3	Test Piece 4	Test Piece 5
1.	Horizontal Burning Rate, mm/min, as per IS: 15061-2002, Clause 3.2, Annex. A	The result of the test shall be considered satisfactory if, taking the worst test results into account, the horizontal burning rate is not more than 100 mm/min or if 3.2, Annex. A (a) flame extinguishes before reaching the test measuring point.	0	0	0	0	0
2.	Remark	Sample under test meets Horizontal Burning Rate test requirement when tested as per IS: 15061-2002, clause 3.2 and Annex A.					

Note: The Automatic Material Library is accredited as per ISO/IEC 17025 to carry out above said test.

TYPICAL PHOTOGRAPH

Sample Before test:  Sample After test: 

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4.0 Melting Behavior Test as per IS: 15061-2002, Clause 3.4 and Annex C

4.1 Observation Table: Both faces of the sample are identical

No.	Test Description	Specified Requirement	Observations			
			Test Piece 1	Test Piece 2	Test Piece 3	Test Piece 4
1.	Melting Behavior test as per IS: 15061-2002, Clause 3.4, Annex. C	The result of the test shall be considered satisfactory if, taking the worst test results into account, no drop is formed which ignites the cotton wool.				
2.	Remark	Sample under test meets Melting Behavior test requirement when tested as per IS: 15061-2002, Clause 3.4 and Annex C.				

The test material with an "is not accredited by NABL"

Photograph

Sample Before test:  Sample After test: 

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3.0 Vertical Flammability test as per IS: 15061-2002, Clause 3.3, Annex. B

3.1 Observation Table: The sample under test is Integrit.

No.	Test Description	Specified Requirement	Observations		
			Test Piece 1	Test Piece 2	Test Piece 3
1.	Vertical Flammability test as per IS: 15061-2002, Clause 3.3, Annex. B	The result of the test shall be considered satisfactory if, taking the worst test results into account, the vertical burning rate is not more than 100 mm/min.			
2.	Remark	Sample under test meets Vertical Burning Rate test requirement when tested as per IS: 15061-2002, Clause 3.3 and Annex B.			

The test material with an "is not accredited by NABL"

Typical Photograph

Sample Before test:  Sample After test: 

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TEST RESULTS

S.No	Test	Results	Protocol Adopted/ Instrument Used
B.	ALUMINIUM COIL		
10.	Tensile Strength, MPa	145	ASTM E836M -15a
11.	Yield Strength (0.2 % Proof), MPa	112	ASTM E836M -15a
12.	Elongation, %	5	ASTM E836M -15a
13.	Coil Thickness, mm	0.5	Calibrated Measuring
(a) Top	0.5		
(b) Bottom	0.5		

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Report No.: MAN-TR-9530003560 DATE: 20/03/2018

1. Test conducted
This test was conducted as per DIN 4102-15:1990 DIN 4102-15:1998 and DIN 4102-1:1998 Clause 3.2, and Classification in accordance to DIN 4102-1 (May 1996) Clause 6.1 Class B1 materials.

2. Sample details

Structure	Aluminum composite panel
Color	White
Density	About 7.2 kg/m³
Size of sample	1000mm x 1000mm x 4.0mm & 190mm x 300mm x 4.0mm

Conditioning
Prior to testing, the sample was conditioned at least 14 days to constant mass at a temperature of 23 ± 2 °C, and a relative humidity of 50 ± 5 %.

3. Test results

1) "Brandschachtel" Test according to DIN 4102-15 & 16

Expected result: The front face

Results of "Brandschachtel" Test (part 1)

Line No.	Unit	Test assemblies No.			
		A	B	C	D
1	Specimen foraging according to DIN 4102 part 15, 16/18				
2	Max. flame height above lower sample edge, mm	40			
3	Time "t", min	0:51			
4	Time "t", min	NO			
5	Back of specimen	NO			
6	Flaming/drooping, Time "t", min	NO			
7	Discoloring, Time "t", min	NO			
8	Burnt residues	NO			
9	Specimen material falling off in separate droplets	NO			
10	Specimen material falling off continuously	NO			

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Report No.: MAN-TR-9530003560 DATE: 20/03/2018

2) Normal Flammability Test according to DIN 4102-1:1998 Clause 8.2

Bottom edge ignition

Frame application time: 15s

Flame test

Line No.	Unit	Test assemblies No.			
		A	B	C	D
1	Specimen foraging according to DIN 4102 part 15, 16/18				
2	Max. flame height above lower sample edge, mm	40			
3	Time "t", min	0:51			
4	Time "t", min	NO			
5	Back of specimen	NO			
6	Flaming/drooping, Time "t", min	NO			
7	Discoloring, Time "t", min	NO			
8	Burnt residues	NO			
9	Specimen material falling off in separate droplets	NO			
10	Specimen material falling off continuously	NO			

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Report No.: MAN-TR-9530003560 DATE: 20/03/2018

Results of "Brandschachtel" Test (part 2)

Line No.	Unit	Test assemblies No.			
		A	B	C	D
1	Specimen foraging according to DIN 4102 part 15, 16/18				
2	Max. flame height above lower sample edge, mm	40			
3	Time "t", min	0:51			
4	Time "t", min	NO			
5	Back of specimen	NO			
6	Flaming/drooping, Time "t", min	NO			
7	Discoloring, Time "t", min	NO			
8	Burnt residues	NO			
9	Specimen material falling off in separate droplets	NO			
10	Specimen material falling off continuously	NO			

TEST REPORT COMPILED BY: *MD Ghazvati*
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DEPUTY GENERAL MANAGER

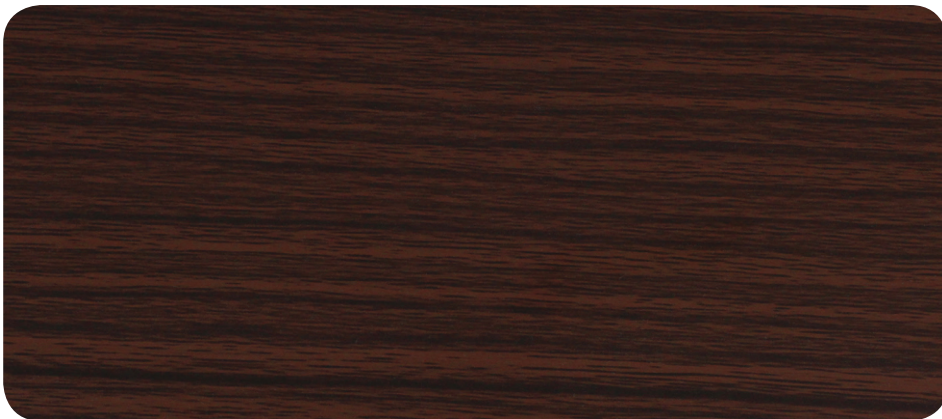
Wooden Series



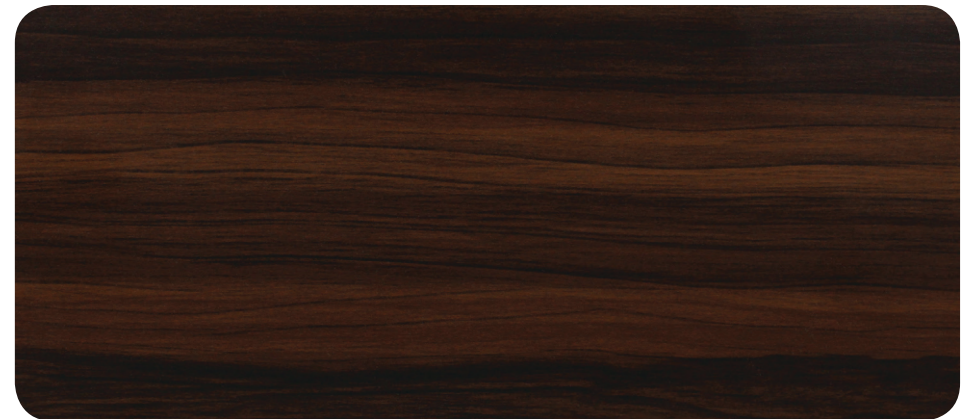
HD-200 ROYAL WALNUT ● ●



HD-203 NEW EBONY ● ●



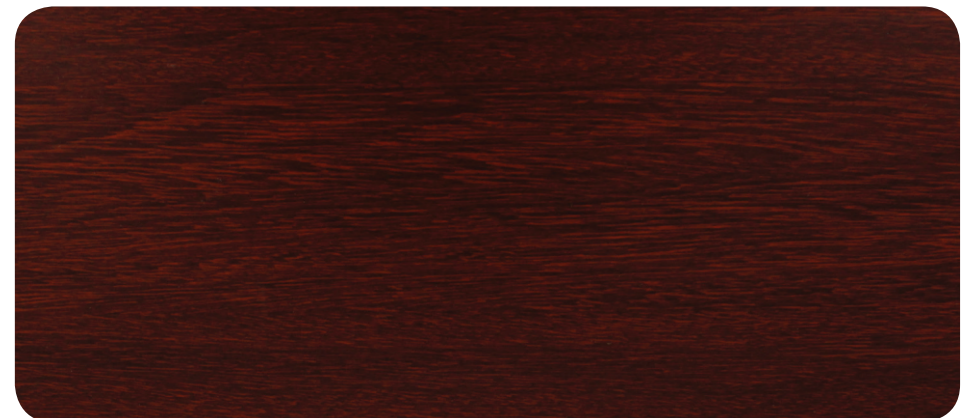
HD-201 CARISMA WOOD ● ●



HD-204 SPLATED RUST WOOD ● ●



HD-202 TROPICAL TEAK ● ●

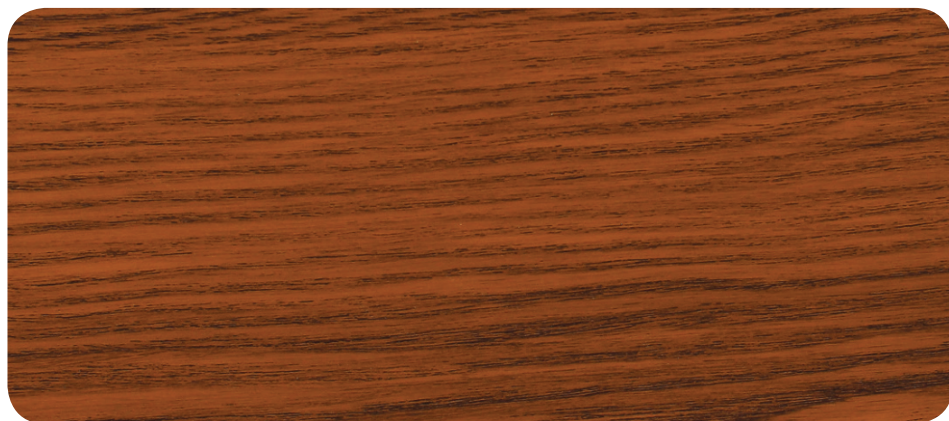


HD-205 ROSE WOOD ● ●

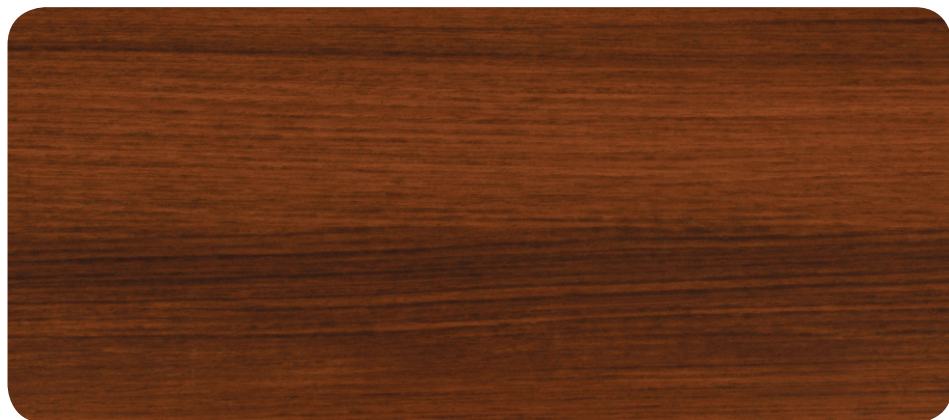
Wooden Series



HD-206 NATURAL WOOD ●●



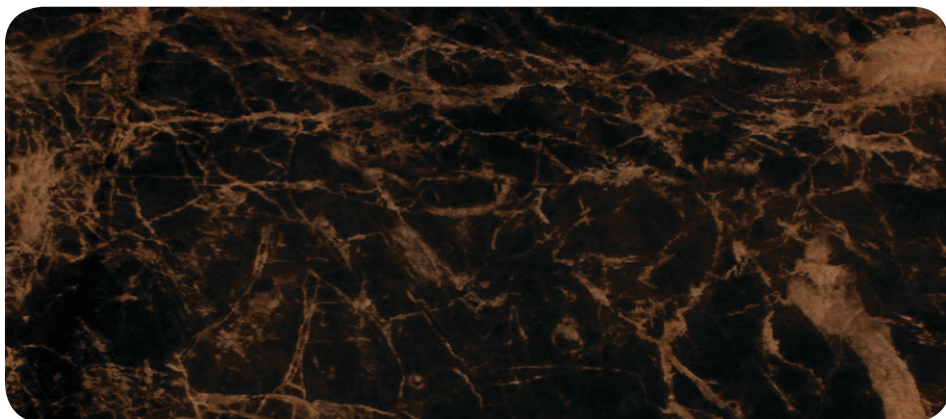
HD-207 INDIAN WALNUT ●●



HD-208 ROYAL WOOD ●●



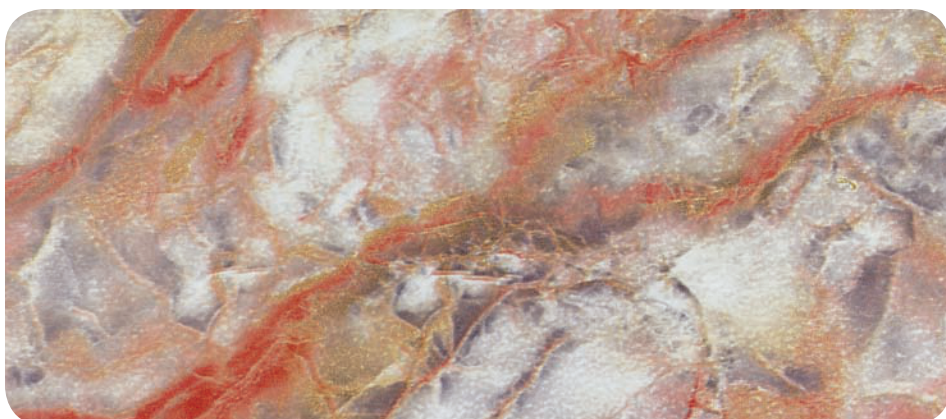
Marble & Mirror Series



HD-300 EMPERADOR ● ●



HD-301 BLACK MARBLE ● ●



HD-302 ITALIAN MARBLE ● ●



HD-303 YELLOW STONE MARBLE ● ●



HD-041 MIRROR GOLD ●



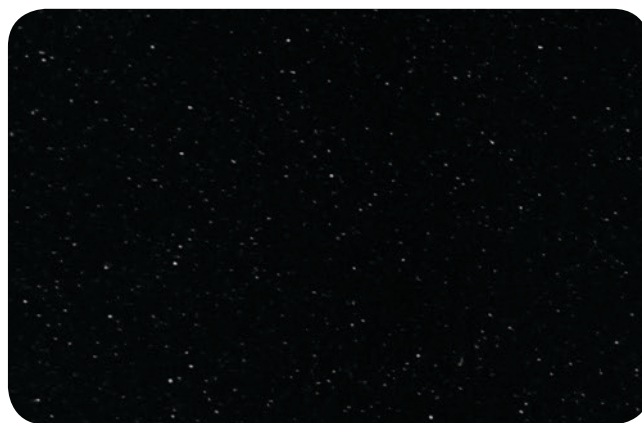
HD-042 MIRROR SILVER ●



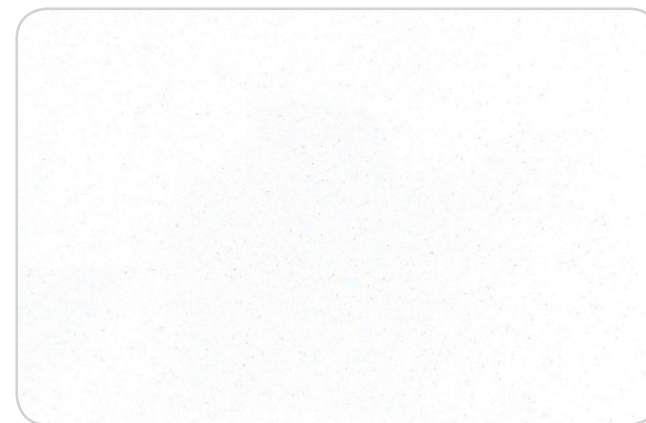
Brush, Sparkle & Glossy Series



HD-054 RED SPARKLE ●



HD-055 BLACK SPARKLE ●



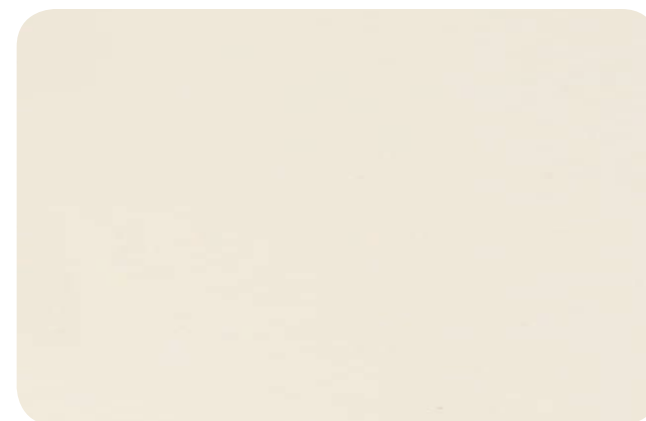
HD-056 WHITE SPARKLE ●



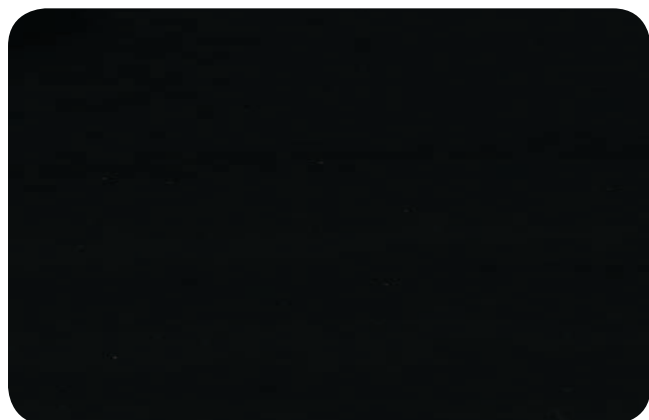
HD-050 RED GLOSS ● ●



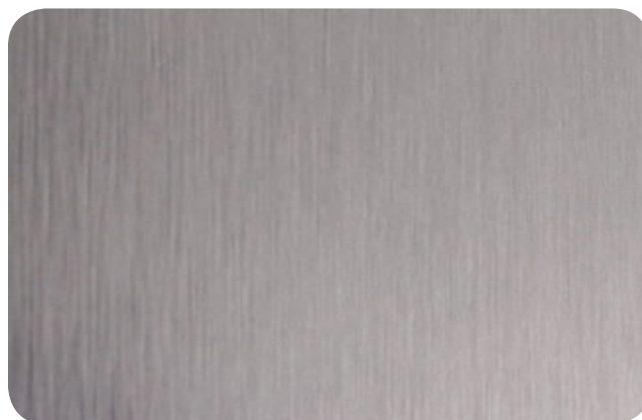
HD-051 WHITE GLOSS ● ●



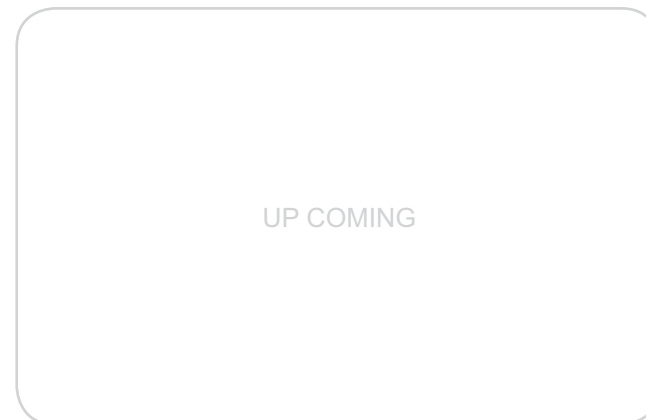
HD-052 IVORY GLOSS ● ●



HD-053 BLACK GLOSS ● ●



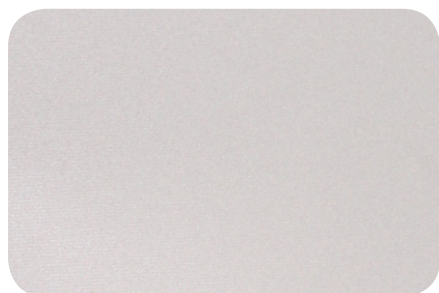
HD-040 BRUSH SILVER ●



UP COMING



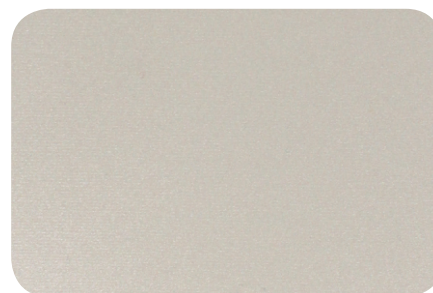
Solid & Metallic Series



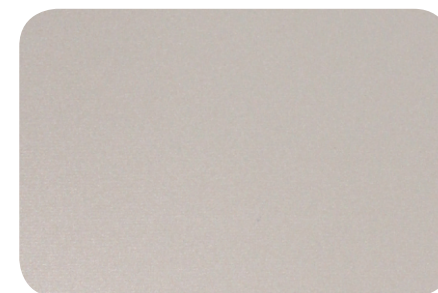
HD-001 BRIGHT SILVER ●●



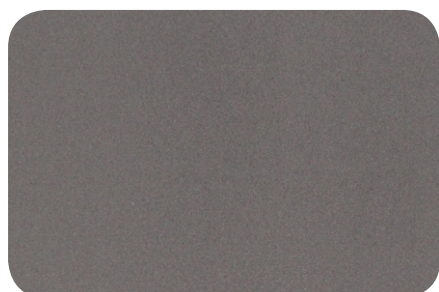
HD-002 SILVER METALLIC ●●



HD-003 CHAMPAGNE SILVER ●●



HD-004 CHAMPAGNE GOLD ●●



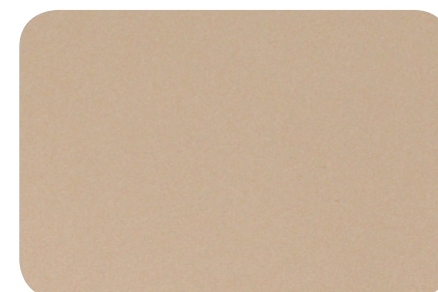
HD-005 METALLIC GREY ●●



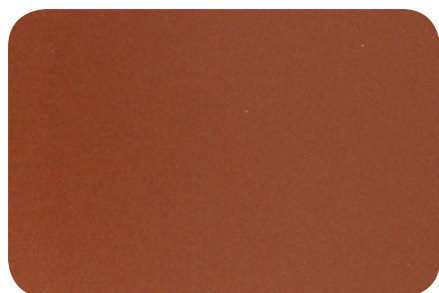
HD-006 BLUE METALLIC ●●



HD-007 ROYAL GOLD ●



HD-008 PRECIOUS GOLD ●●



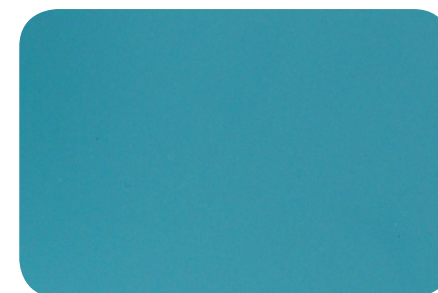
HD-009 COPPER JEWEL ●



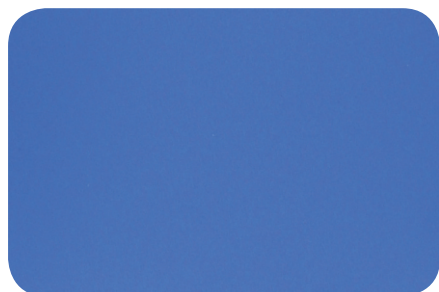
HD-010 DUCTILE COPPER ●●



HD-011 MALLEABLE COPPER ●



HD-012 GREEN SEA ●



HD-013 VIVO BLUE ●●



HD-014 SAMSUNG BLUE ●●



HD-015 ROYAL RED ●●



HD-016 RICH RED ●

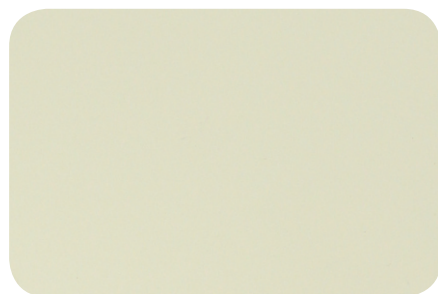
Also available in ● Exterior, ● Interior & ● HPL 6 mm



Solid & Metallic Series



HD-017 ROSE RED ●●



HD-018 NATURAL IVORY ●●



HD-019 GLAIRE WHITE ●●



HD-020 WHITE SMOKE ●



HD-021 SAND DUNE ●



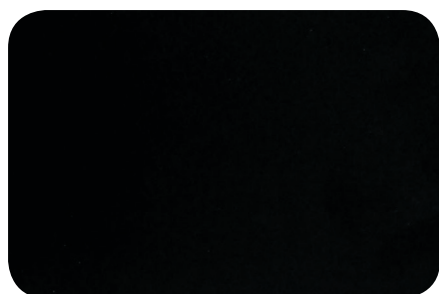
HD-022 BURNING SAND ●



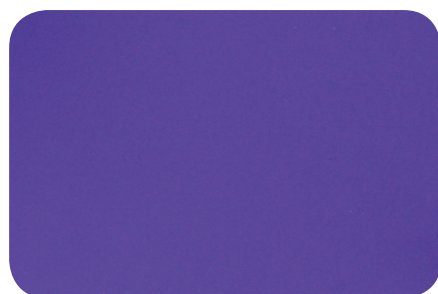
HD-023 EVER GREEN ●



HD-024 OPPO GREEN ●



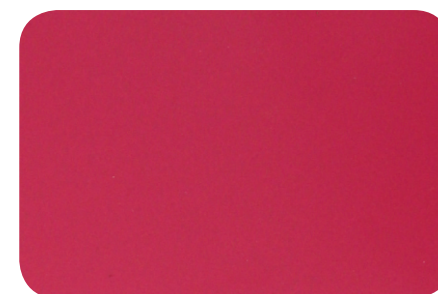
HD-025 COAL BLACK ●●



HD-026 ROYAL PURPLE ●



HD-027 MANDARIN ORANGE ●●



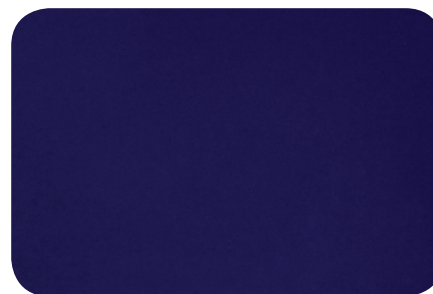
HD-028 PINK CHARM ●



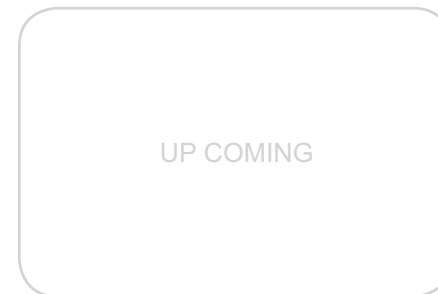
HD-029 DARK BROWN ●●



HD-030 YELLOW ●●



HD-031 BLUE SKY ●●



UP COMING

Also available in ● Exterior, ● Interior & ● HPL 6 mm



Solid, Metallic, Wooden & Marble APP Series



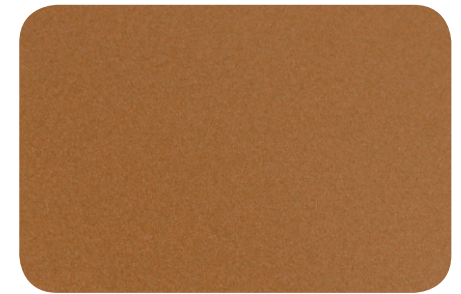
HB-001 BRIGHT SILVER



HB-005 METALLIC GREY



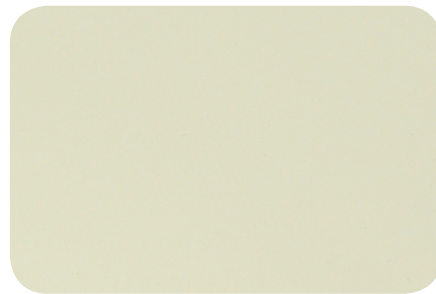
HB-007 ROYAL GOLD



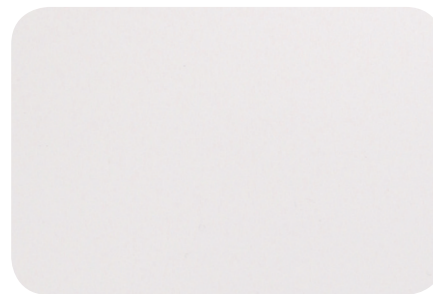
HB-010 DUCTILE COPPER



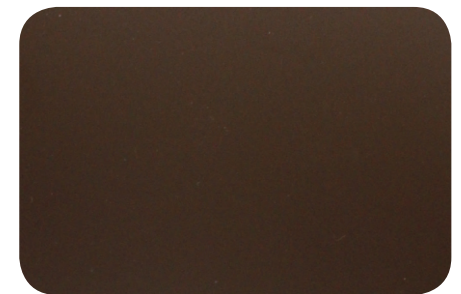
HB-016 RICH RED



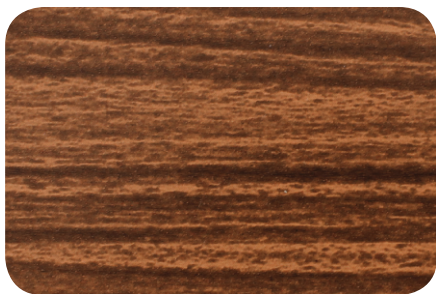
HB-018 NATURAL IVORY



HB-019 GLAIRE WHITE



HB-029 DARK BROWN



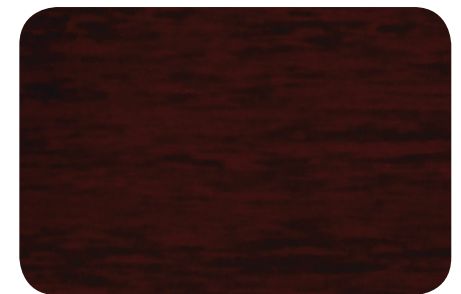
HB-050 WALNUT TIMBER



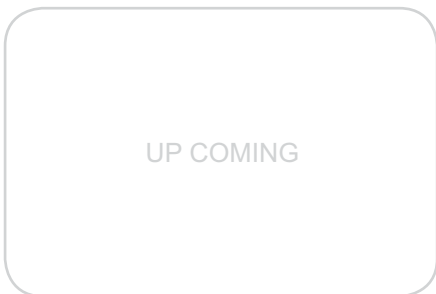
HB-051 OXFORD CHERRY



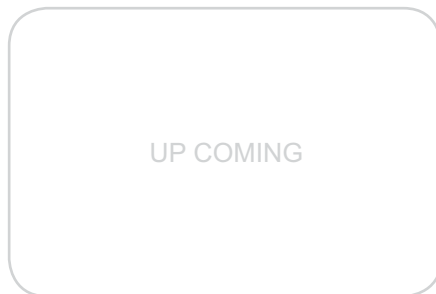
HB-052 WENGE WOOD



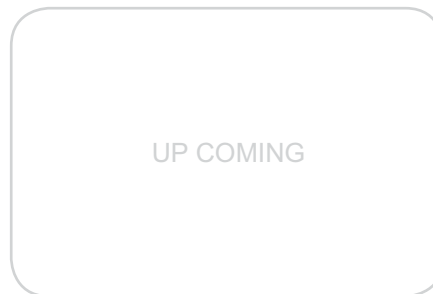
HB-053 MAHAGONY



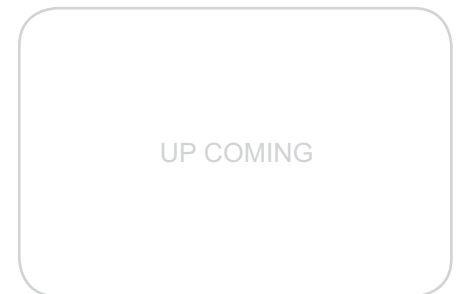
UP COMING



UP COMING



UP COMING



UP COMING





HYNADecorTM

ALUMINIUM COMPOSITE PANELS

An ISO 9001 : 2015 ISO 14001 : 2015 OHAS 18001 : 2007 Certified Company

Corporate Office: 3rd & 4th Floor, D-3, C-Block, Community Center, Naraina Vihar, New Delhi-110028, INDIA
Phone: +91-011-40224500

Factory: Khewat No 458, Khatta No-532, Killa No-32/1/2, 2/2/2, Village-Wazidpur Saboli, Block-Rai Saboli, District – Sonapat-131001, Haryana. INDIA
Email: factory@hynadecor.com

info@hynadecor.com
www.hynadecor.com

*Colour may vary from batch to batch $\triangle \pm 5$

To avoid colour variation, place an order the total quantity for one particular building.
To avoid possible relection of light variation, install panels in the same direction as marked on the protective ilm.

