

Class Apart

Enter the world of Zinc and Copper Composite Panels





76 South Avenue, Mumbai

ZCP and CCP

Those who make a mark do it subtly. Their choices exude confidence and charisma. One look at them, and you'll know they are different. They are truly a class apart!

Aludecor's Copper Composite Panels (CCP) and Zinc Composite Panels (ZCP), introduced in India for the first time by Aludecor, take cladding dreams several notches higher. Super durable and stunning to have them adorn your facades will be a style statement in itself.

They combine the natural beauty of zinc and copper, with the flatness, durability, ease of fabrication and cost-effectiveness that Aludecor MCPs are known for. With all the benefits of composite panels these easily lend themselves to classic as well as modern designs.

Reasons to choose ZCP and CCP

- Aesthetically superior and majestic in appearance, they instantly lend an elegant look to interiors and exteriors.
- The panels are exceptionally strong with unmatched flatness.
- They can be fabricated and easily moulded to suit any design.
- They can be made fire-retardant.
- Zinc and Copper are self-healing materials; they naturally develop a protective layer of zinc carbonate or patina as they age.
- The skins have a lifetime potential of over 100 years, subject to environmental conditions and proper installation.

Environment-friendly

Zinc and Copper are natural elements. They can be recycled at a rate of 90 to 100 percent and have less embodied energy than aluminium or steel. This is why they use less energy at the production time and have a second life after they come off. Combining a high recycling rate with low maintenance and a long life cycle equating to lower costs is a win-win for both the architect and the builder.

They are non-corrosive, environment-friendly and natural, with 100% clear water runoff.

- The use of Zinc and Copper enable buildings to qualify for LEED points.
- The long term service-life implication of buildings has received more attention in recent years, particularly during the development of the International Green Construction Code (IGCC). The long life expectancy of both ZCP and CCP readily supports this requirement.
- Part of the beauty of these metals comes from their natural colours. This means no additional paints, sprays, or other treatment is needed. Consequently, no Volatile Organic Compounds (VOCs) that might generate emissions that counter a healthy indoor environment needs to be introduced.

ZCP-FR

The FireWall range of Zinc Composite Panels is a certified product from Aludecor. It is the only Indian brand to have received the Factory Production Control Certification of Class B-s1 d0 in accordance with EN 13501-1. The FireWall range of Class B products has also passed the NFPA 285 full-scale building test, which further signifies the best quality product to be utilized in any building. Also, the fire-rated core is an in-house product of Aludecor as we are the only Indian brand to have a palletizing line.

Aludecor has the best R&D in our range of products as the core recipe has been developed indigenously. All the batches of the product can be tested in the in-house lab that can test all the fire behaviours like heat release, ignition, flame spread, smoke produced and molten droplets according to the International Standards.

The achievement for Zinc Composite Panel has been the low melting point of Zinc, and its Conductivity to heat, which the FR Core manufactured by Aludecor has controlled. The FR Core produced in-house help in cooling the temperature by using Aluminium Tri Hydrate and Magnesium Di Hydroxide, which controls the temperature and inhibits the flame spread and smoke produced.

ZCP-FR

The FPC for the product is received from Warringtonfire and is listed on its website. During the FPC, our raw materials used for manufacturing are checked. Our manufacturing process, procurement and sales processes are audited along with the product testing done, ensuring the best quality from Aludecor. One can check the ZCP-FR Certificate CF 6002 from the website of Warringtonfire (now under Element Materials Technology) or ask any Aludecor sales representatives.

ALUDECOR ZCP TECHNICAL SPECIFICATIONS

DESCRIPTION OF TEST	STANDARD	UNIT	ZCP	ZCP FR
PRODUCT DETAIL AND THICKNESS		mm	4	4
COIL THICKNESS ZINC ALLOY	EN 988	mm	0.5	0.5
COIL THICKNESS ALUMINIUM ALLOY	EN 485-2	mm	0.5	0.5
CORE			LDPE	Mineral Filled FR

MECHANICAL PROPERTIES

ZINC COIL				
TENSILE STRENGTH	ASTM E8	N/mm ²	150	150
TENSILE YIELD	ASTM E8	N/mm ²	100	100
ELONGATION	ASTM E8	%	35	35

ALUMINIUM COIL

ALUMINIUM COIL				
TENSILE STRENGTH	ASTM E8	N/mm ²	150	150
TENSILE YIELD	ASTM E8	N/mm ²	130	130
ELONGATION	ASTM E8	%	2	2

ZCP

ZCP				
WEIGHT		Kg/m ²	7.5	9.35
TENSILE STRENGTH	ASTM E8	N/mm ²	50	50
TENSILE YIELD	ASTM E8	N/mm ²	45	45
ELONGATION	ASTM E8	%	10	10
PEEL STRENGTH	ASTM D 903	N-mm	10	10
FLEXURAL STRENGTH	ASTM D 790	N/mm ²	145	145
FLEXURAL MODULUS	ASTM D 790	N/mm ²	18X10 ³	18X10 ³
DEFLECTION TEMPERATURE	ASTM D 648	°C	240	240
WATER ABSORPTION	ASTM C 272	%	NIL	NIL

FIRE PROPERTIES

REACTION TO FIRE	EN 13501-1			Class B
RESISTANCE TO FIRE	ASM E119-12	hrs		2

PRODUCT TOLERANCE Panel Width ±2.0mm; Panel Length ±4.0mm; Panel Thickness ±0.2mm; Maximum Squareness 5.0mm; Maximum Bow 0.5% of width and/or length; Coil Thickness ±0.03mm



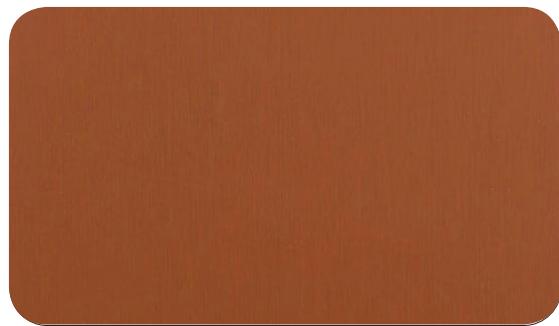
ZA - Anthra



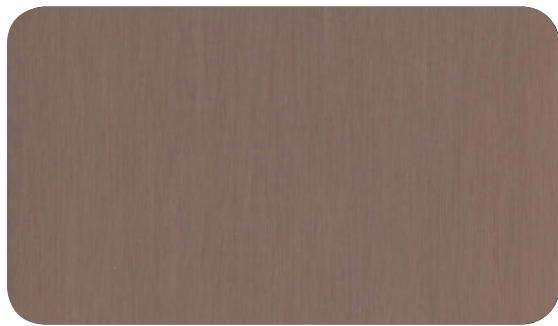
ZPB - Pigmento Blue



ZPR - Pigmento Red



ZPO - Pigmento Orange



ZPG - Pigmento Grey



ZQS - Quartz Strat

Zinc Composite Panels (Z-A)

Zinc coil for manufacturing Aludecor ZCP has been sourced from VMZINC, France.

The top layer of ZCP (Z-A) is of zinc-titanium (Zn-Ti), and the bottom layer is aluminium. It's available in both normal and FR grades.

Titanium zinc alloy absorbs the greenhouse gas carbon dioxide and develops a natural zinc carbonate patina which not only protects the surface, but also heals scratches and imperfections over time.

Product Application

- The main areas of application for ZCP and CCP are façades, claddings, roofs and interiors.
- ZCPs and CCPs can be fabricated using the same equipment used for Aludecor MCPs.
- ZCPs and CCPs can be installed with fasteners and extrusions made of aluminum, stainless steel, and galvanized steel
- ZCPs and CCPs come with strippable film for protection during fabrication and installation.



CERTIFICATE OF APPROVAL No CF 6002

This is to certify that, in accordance with
TS00 General Requirements for Certification of Fire Protection Products
The undermentioned products of

Aludecor Lamination Pvt Limited

Suite No.52, 5th 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 Technical Schedule(s)
denoted below and are approved for use subject to the conditions
appended hereto:

CERTIFIED PRODUCT

TECHNICAL SCHEDULE TS 72

“ALUDECOR- Firewall” / Classification B-s1, d0
“Aludecor Firewall – ZCP⁺ (Z-A)”

See Annex 1 for detailed product
information

Signed and sealed for and on behalf of Warringtonfire Testing and Certification Limited

Paul Duggan
Certification Manager



Issued: 15th June 2021
Audit Test Frequency: Annually
Valid to: 14th June 2026



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This certificate is the property of Warringtonfire Testing and Certification Limited
Registered in England and Wales

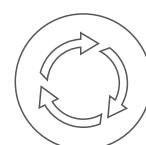
Registered Office: 10 Lower Grosvenor Place, London, United Kingdom, SW1W 0EN. Company Registration No: 11371436

AludecoR
VMZINC

Aludecor is VMZinc's Exclusive Partner in India
for the manufacture of Zinc Composite Panel



Helps buildings
qualify for LEED



Recyclable



Saves energy



Fire-retardant

Handling

1. Protective film

The ZCP (Z-A) surface is covered with a strippable film during the manufacturing process to protect the surface from dirt, moisture and scratches during handling, fabrication and installation. The film should be removed immediately after installation. Leaving the film on a long period after installation may cause difficulty in removing it afterwards.



2. Handling

While handling the ZCP (Z-A) panels, the middle of the panel in addition to both ends should be held as well, as it is heavier than normal ACP and tends to have a large warping owing to its dead load.

3. Support

Flat and fabricated ZCP (Z-A) panels should be transported in secure packing configurations to avoid abrasion and scratches. Special care should also be taken to store and transport ZCP (Z-A) panels on flat, well supported surfaces to avoid material deflection and potential permanent set.

4. Protection from water and moisture

ZCP panels must be transported and stored under dry, well-ventilated conditions. Direct contact of the top zinc surface with any wet surface should be avoided. One of the advantages of Aludecor ZCP (Z-A) is that the aluminium on its back resists corrosion from accidental accumulation of water beneath the panels.

5. Fingerprint

Gloves and long sleeves should be used while handling ZCP (Z-A). Handling the unprotected surface of the material with bare hands may leave fingerprints on the surface, which will get absorbed into the patina and thereby discolour the metal due to the acidity in perspiration.

Copper Composite Panel (C-A)

Copper Coils used to manufacture Aludecor CCPs are imported from Europe.

The top layer of CCP is of copper and the bottom layer is of aluminium. Available in both FR and normal grades, Aludecor CCPs are certified Cu⁺ by the International Copper Association, which validates that they are anti-microbial. They are therefore a great choice for spaces where health is a priority.

Right after cladding, CCP (C-A) shows a new and fresh copper colour. Being exposed to weathering, rain, sunshine and humidity causes the colour of the facade to change dynamically in a natural process. It changes from glossy shining copper to a dark matte brown. After years of oxidisation, spectacular patina spots emerge on the surface of the panel. The brilliant green patina spots make the building look lively, while protecting the facade from corrosion.

The patina forming process is influenced by the building's location, latitude and longitude. But the major tendency is red copper-brown-patina.

New

4 months

8 months

1 year

2 years

3 years

4 years

5 years

7 years

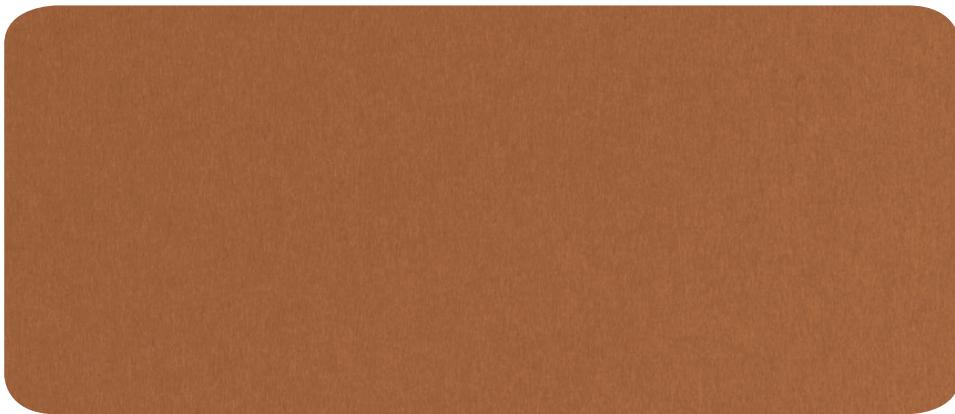
10 years

15 years

25-50 years



Milestone Experion Centre, Gurgaon



Cu-01 Copper Clear

Handling

1. Protective film

A removable film is applied on the surface of the CCP in order to shield it from dust, moisture, stains or scratches while handling or fixing the product. But the film should be immediately removed after the fabrication process is over.

2. Proper handling

As CCP is relatively heavier than an MCP, it should be carefully handled. It should be supported at the middle as well as at both the ends so as to avoid any dent at either ends. Furthermore, the CCP panels should be transported and stored in safe and secure packs to minimize abrasion and cracking risks.

3. Moisture protection

CCPs should never be kept inside damp places or materials. Rather they should be always transported inside dry and ventilated materials.

4. Fingerprint

Gloves and long sleeves are a must while handling CCPs so as to avoid any stain marks or fingerprints on the surface which might discolour the material in the long run.



ALUDECOR CCP TECHNICAL SPECIFICATIONS

DESCRIPTION OF TEST	STANDARD	UNIT	CCP	CCP FR
PRODUCT DETAIL AND THICKNESS		mm	4	4
COIL THICKNESS COPPER ALLOY	EN1 652	mm	0.21	0.21
COIL THICKNESS ALUMINIUM ALLOY	EN 485-2	mm	0.5	0.5
CORE			LDPE	Mineral Filled FR
MECHANICAL PROPERTIES				
COPPER COIL				
TENSILE STRENGTH	ASTM E8	N/mm ²	240	240
TENSILE YIELD	ASTM E8	N/mm ²	180	180
ELONGATION	ASTM E8	%	8	8
ALUMINIUM COIL				
TENSILE STRENGTH	ASTM E8	N/mm ²	150	150
TENSILE YIELD	ASTM E8	N/mm ²	130	130
ELONGATION	ASTM E8	%	2	2
CCP				
WEIGHT		Kg/m ²	6.64	8.8
TENSILE STRENGTH	ASTM E8	N/mm ²	45	45
TENSILE YIELD	ASTM E8	N/mm ²	40	40
ELONGATION	ASTM E8	%	10	10
PEEL STRENGTH	ASTM D 903	N-mm	8	8
FLEXURAL STRENGTH	ASTM D 790	N/mm ²	140	140
FLEXURAL MODULUS	ASTM D 790	N/mm ²	16X10 ³	16X10 ³
DEFLECTION TEMPERATURE	ASTM D 648	°C	240	240
WATER ABSORPTION	ASTM C 272	%	NIL	NIL

FIRE PROPERTIES

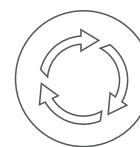
REACTION TO FIRE	EN 13501-1			Class B
RESISTANCE TO FIRE	ASM E119-12	hrs		2

PRODUCT TOLERANCE Panel Width ±2.0mm; Panel Length ±4.0mm; Panel Thickness ±0.2mm; Maximum Squareness 5.0mm; Maximum Bow 0.5% of width and/or length; Coil Thickness ±0.03mm

Antimicrobial
Copper



Helps buildings
qualify for LEED



Recyclable



Saves energy



Fire-retardant



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Zonal Offices - Delhi, Mumbai, Chennai

Branch Offices - Ahmedabad, Kochi, Pune, Hyderabad, Bangalore, Indore, Bhubaneswar, Guwahati & Nagpur

AludecoR
FireWall A2
Fireproof MCPs*

AludecoR
FireWall
Fire Retardant MCPs

Aludecor MCPs can come in both Aludecor FireWall A2 and Aludecor FireWall. They have Factory Production Control certification from Warringtonfire of the UK (ewcl⁵) [now under Element Materials Technology] for reaction to fire classifications of EN 13501-1 Class A2-s1, d0 for FireWall A2 (CF 5916), EN 13501-1 Class B-s1, d0 (CF 6002) and BS 476, Part 6 and 7 Class O (ME 5092) for Aludecor FireWall.

Now, Aludecor ZCP is available in FR Class B (CF 6002). Aludecor has surpassed one of the World's Highest Fire Safety Standards - the NFPA 285 Rating Test for FireWall Class B products.

#BeatTheFire

*Aludecor FireWall A2 has fireproof properties close to metals.

AludecoR
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