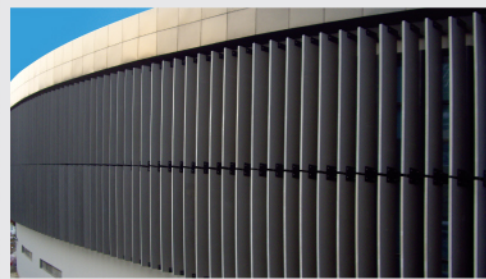


FJ-NAKANOSHIMA Building

Location	Kita-ku, Osaka, Japan
ASLOC	Louver 60
Finish	On-site coating



Shenzhen Water gym

Location	Shenzhen, China
ASLOC	Louver 60
Finish	Substrate surface



Jinqiao NO.28 project

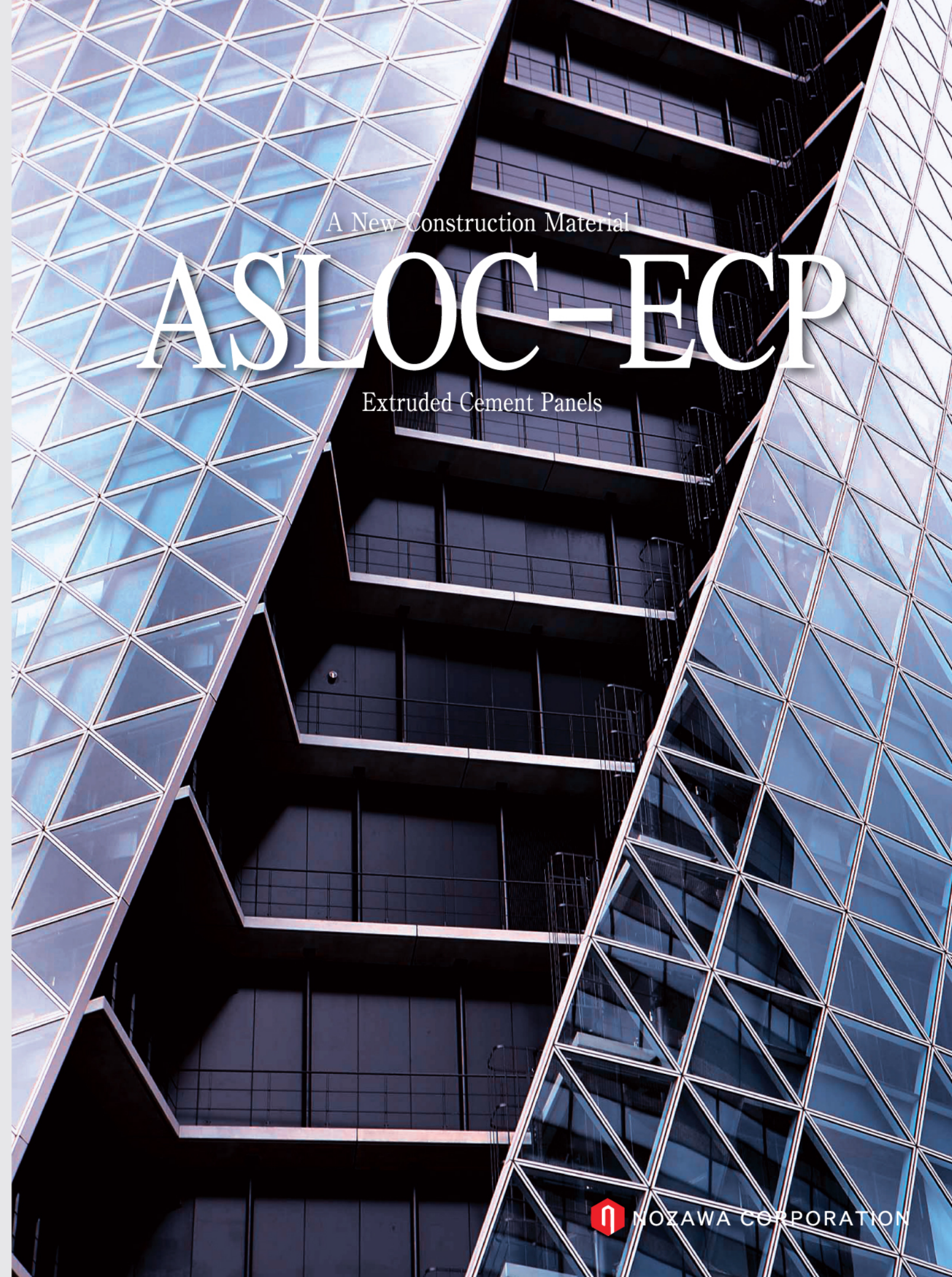
Location	Jinqiao, Shanghai, China
ASLOC	Louver 100, AW 26890
Finish	On-site coating

NOZAWA CORPORATION

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NBS201108-5000



A New Construction Material

ASLOC-ECP

Extruded Cement Panels



NOZAWA ASLOC-ECP

ASLOC-ECP is the general term for NOZAWA's extruded cement panels manufactured under our original system developed through our long experience and research as a leading manufacturer of building materials.

The revolutionary progress in prefabricated construction technology demands building materials in the form of more complex components instead of as raw materials.

To meet these demands, NOZAWA has developed automated systems for the manufacture and quality inspection of ASLOC-ECP panels and has engaged in the research and development of advanced uses.

Since its introduction in 1970, ASLOC-ECP panels have been acclaimed for their excellent resistance against noise, freezing, fire, and earthquakes, and have been adopted for exterior walls and partitions of numerous office buildings, plants, and warehouses throughout Japan. NOZAWA is indeed the leading manufacturer of extruded cement panels in Japan.

We offer a full range of ASLOC-ECP panels including those finished with tiles or fluoroc resin coating as well as those with Lock emboss designs. We also offer ASLOC-ECP panels for external insulation systems along with other application technologies

We are confident our ASLOC-ECP panels will provide you excellent support in your design efforts.

Features

ASLOC-ECP extruded cement panels provide diverse features required for exterior walls and partitions.

Excellent strength

The excellent strength and rigidity of ASLOC-ECP panels provide a greater support span. This contributes to cost savings since less sub-structural steel is required.

Lightweight

With a hollow cross-section, ASLOC-ECP panels are thin and light which facilitates their application. This feature also enables reduction in the use of foundational and structural materials for high-rise buildings.

Large dimensions

We can produce ASLOC-ECP panels of up to 5 meters long. The standard width of our panels is 600 mm, but the maximum width available is 1200 mm. This allows you to create dynamic wall presentations with fewer joints.

Sound insulation

The hollow cross-section of ASLOC-ECP panels provides stable sound insulation for all sound ranges.

Diverse finishes

We offer diverse finishes. You can acquire a sharp image by applying a plain coating on a monotonous surface, or you can make your choice from a variety of design panels including those with ribs, embosses, or tile application.

Resistance against freezing

The fine grain of the cement prevents surface water absorption making ASLOC-ECP panels highly resistant against freezing. This assures the reliability of ASLOC-ECP panels over a long period of time.

Fireproof

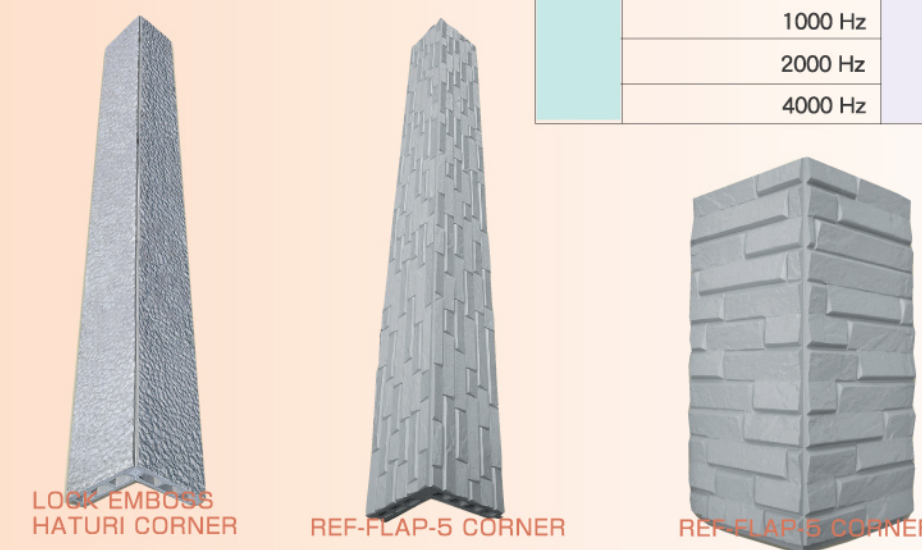
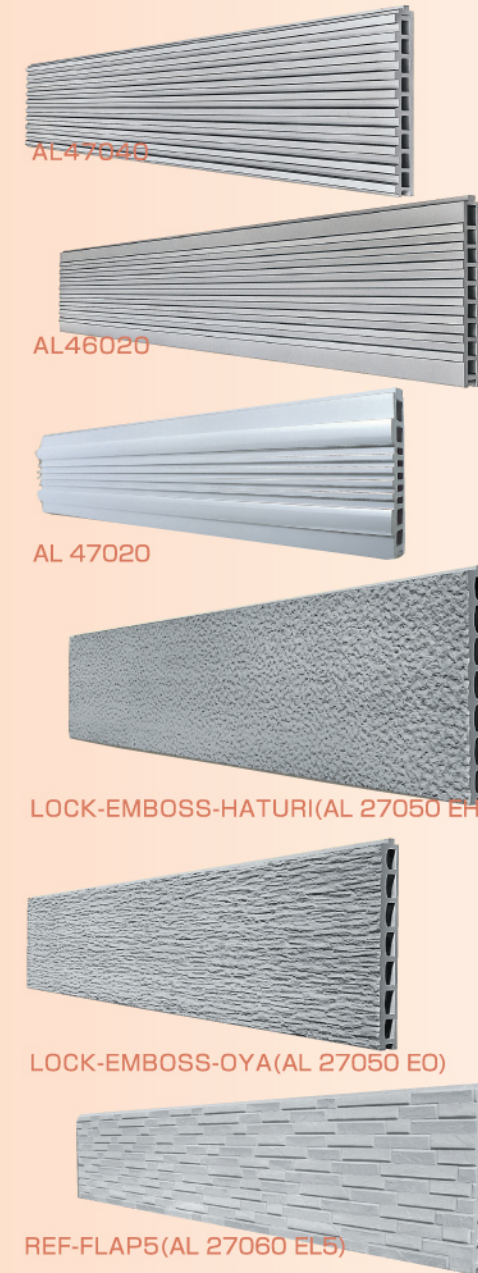
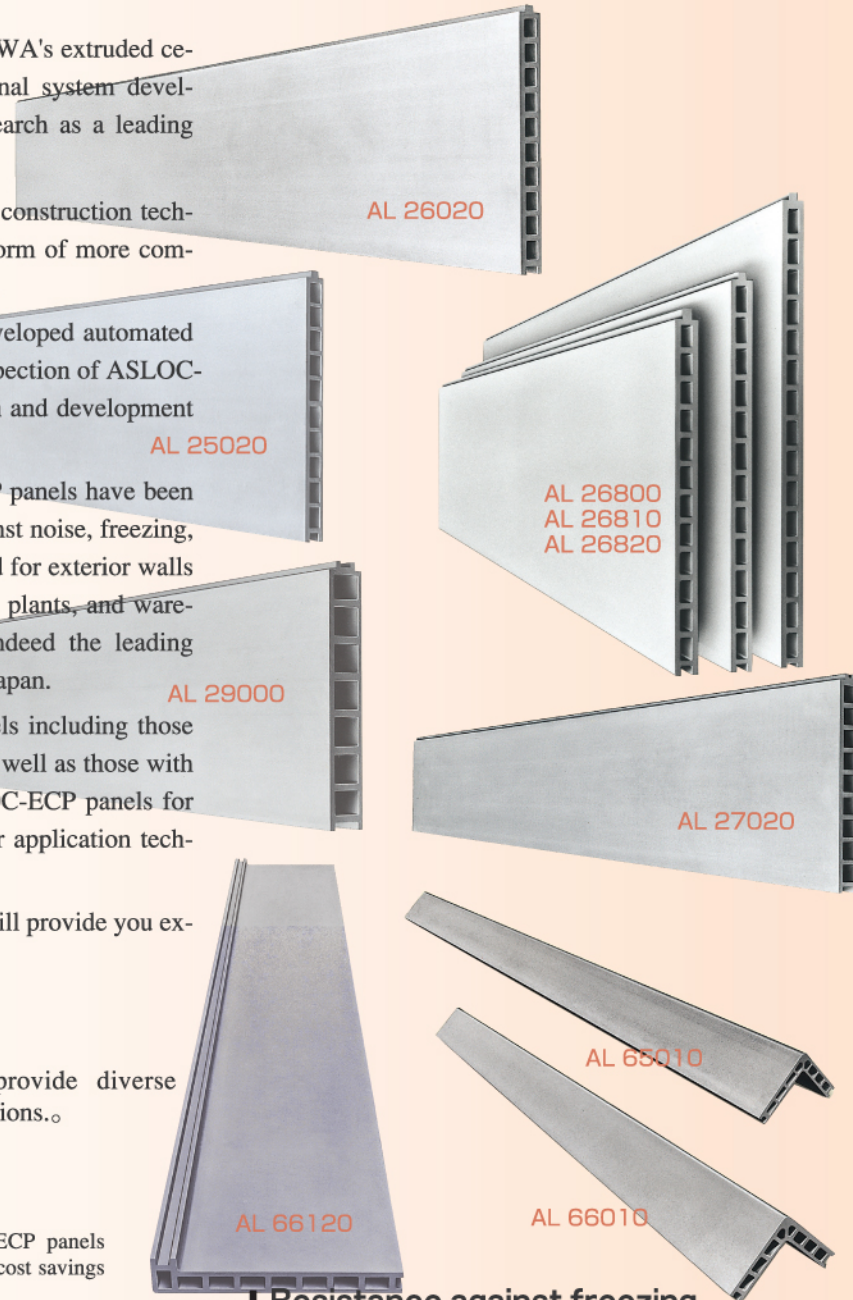
ASLOC-ECP panels meet all fireproof requirements for external walls and partitions stipulated by the Japanese Building Standard Law.

Earthquake resistance

Standard installment with Z-clips ensures sufficient resistance against displacement of buildings. Their security has been well proved on the occasion of the Great Hanshin Awaji Earthquake.

Great variety and achievements

We offer a great variety of products, and are confident that we have a product that suits the designer's intentions. ASLOC-ECP panels have been adopted in many significant structures throughout Japan.



Physical Features & Performance

Item		Product thickness	Features & Performance	
Weight	Specific gravity of material (when dry)		Approx. 1.9	
	Unit weight	50 mm	50 kg/m ²	
		60 mm	70 kg/m ²	
Strength	Bending strength		At least 17.6 N/mm ²	
	Impact strength (Test with 30 kgf sandbag dropped from 2 m above)		No penetration nor cracks were detected after tests	
Water	Young's modulus		Approx. 2.5 x 10 ⁴ N/mm ²	
	Water content		8% or less	
	Water absorption		16% or less	
	Rate of change due to water absorption		0.07% or less	
Heat	Average heat transfer coefficient	50 mm	0.42 W/mK	
		60 mm	0.47 W/mK	
	Average heat transmission coefficient	External walls	50 mm	3.69 W/m ² K
		Partitions	60 mm	3.57 W/m ² K
		50 mm	2.98 W/m ² K	
		60 mm	2.90 W/m ² K	
Freezing	Freezing and thawing resistance (300 cycle test)		No significant cracks, expansion, nor peeling detected, and mass change was 5% or less after tests	
Earthquake resistance	Standard longitudinal installation (1/60 displacement tests)		No problems after tests	
	Standard lateral installation (1/60 displacement tests)		No problems after tests	
Sound insulation		50 mm	125 Hz	31 dB
			250 Hz	32 dB
			500 Hz	32 dB
			1000 Hz	36 dB
			2000 Hz	44 dB
		4000 Hz	51 dB	
		60 mm	125 Hz	33 dB
			250 Hz	33 dB
			500 Hz	33 dB
			1000 Hz	39 dB
	2000 Hz		48 dB	
	4000 Hz	53 dB		

Allowance

	At shipment
Length	0, -2 mm
Width	0, -2 mm
Total thickness	±1.5 mm

Major Products

Flat Panels

Flat ASLOC-ECP panels have flat and smooth surfaces. With the standard thickness at 60 mm, we also offer types that are 50 mm, 75 mm, and 100 mm thick. The standard width of our flat panels is 600 mm, and we also offer types with widths of 450 mm and 500 mm for adjusting purposes. The maximum length for all types is 5 meters. However, you should determine the maximum length you require by calculating the allowable support span from the design load of your building.

Features

- Flat ASLOC-ECP panels provide excellent resistance against fire, earthquakes, and noise despite their thinness and lightness.
- You can obtain a distinct texture by using the substrate surface of our flat panels, or you can acquire a sharp-looking wall surface by adding a plain coating.

Design Panels

We also offer ASLOC-ECP panels with rib and emboss designs on the surface.

Emboss Panels

Lock Emboss Panels

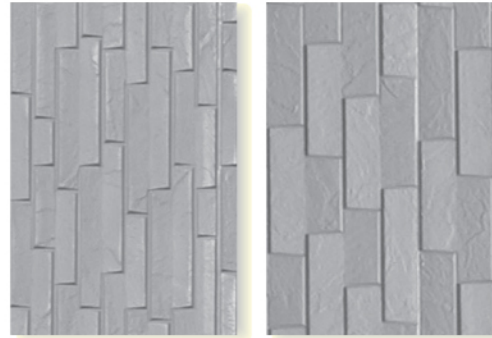
In our Lock Emboss panels, we have succeeded in processing random designs to our ASLOC-ECP extruded cement panels. Our Basic Series have been well received since their introduction in 1994.



LOCK EMOSS Surface Impressions

REF-FLAP 5

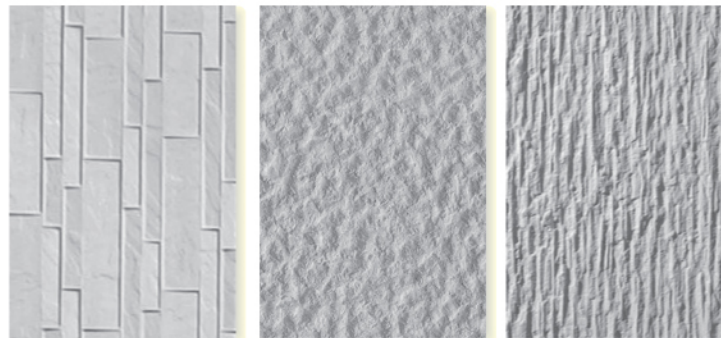
REF-FLAP 10



REF-FLAP COMBI

HATSURI (AL 27050EM)

OYA (AL 27050EM)



Rib Panels

AL48010

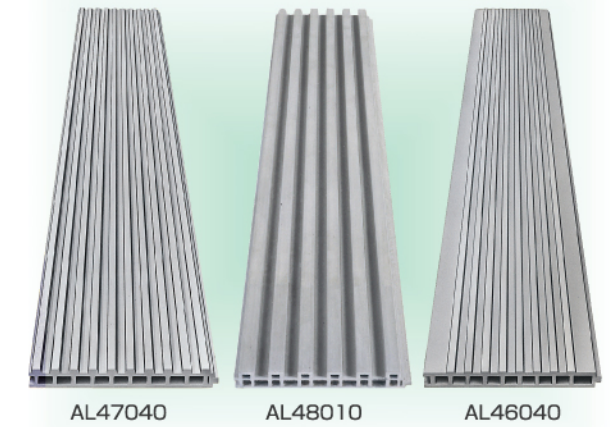
This panel is perfect for dynamic presentations on broad walls.

AL46040

The ribs on this panel give a gentler impression. It can present a soft flow of lines on extensive commercial structures.

AL47040

This panel provides ribs of a size between the above two types. We offer many other types that present impression you desire.



Coated Panels

Finished with high performance paints at our exclusive plant equipped with the latest automatic coating systems, our coated ASLOC-ECP panels are of superb quality.

COLORFLON

Panels finished with low pollutant fluoroc resin paint

Our COLORFLON Panels are coated and baked with low pollutant fluoroc resin solid color paint. They have remarkably longer durability and sustainability, and more resistance against atmosphere corrosion than regular coating. They also provide outstanding resistance against water and alkaline, and especially against freezing and thawing.

COLORFLON METALLIC

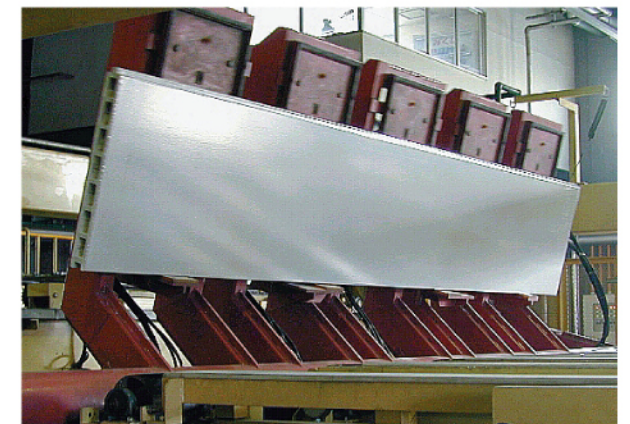
Panels finished with low pollutant fluoroc resin paint

We also offer COLORFLON METALLIC Panels coated and baked with low pollutant fluoroc resin metallic paint. The robots in our fully automated coating line apply paint evenly onto the panels according to precise programs producing gorgeous metallic panels with a fair finish required for extensive walls.

COLORLEAD

Panels finished with acrylic urethane resin paint

COLORLEAD Panels are coated and baked with acrylic urethane resin paint. Acrylic urethane paint offers more gloss, abrasion resistance, and atmosphere corrosion resistance than plain acrylic resin paints. They offer sufficient corrosion resistance for general purposes.

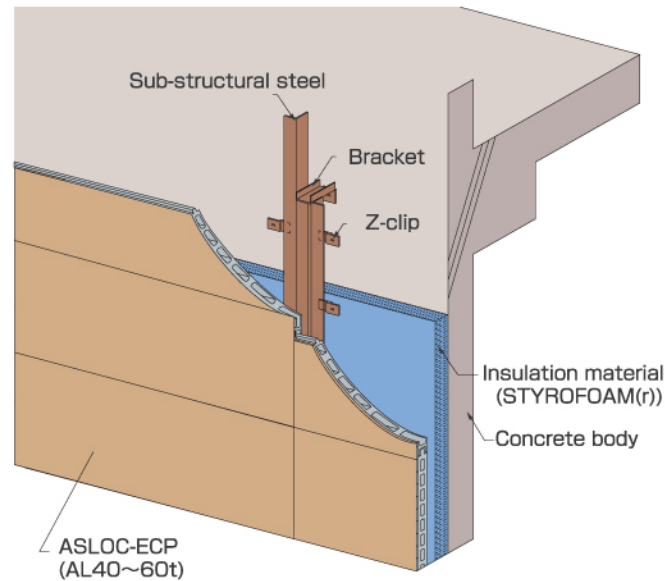


Projects

Shenzhen Guesthouse

Location	Shenzhen, China
ASLOC	AW 26890, AL 47110
Finish	Substrate surface

The ASLOC-ECP External Insulation System



The ASLOC-ECP External Insulation System is a covering method that provides external insulation for concrete reinforced buildings. A thermal layer with excellent durability is formed surrounding the external wall using ASLOC-ECP and insulation material (Styrofoam®).

Deterioration of the concrete body is also prevented since this layer protects it from fluctuations in the temperature.

Features

The external insulation system features the adoption of insulation material surrounding the entire concrete body so that the large heat capacity of the building serves to optimize the thermal atmosphere

- It prevents heat stress from sunlight onto the concrete.
- A pleasant room temperature is maintained since the outside temperature changes are not directly reflected into the building.
- It alleviates local cooling inside a building.
- Dew formation can be prevented since the lowest temperature inside the building is higher than buildings with internal insulation systems.

Insulation Material Used

Insulation material: STYROFOAM EK® (extruded polystyrene)
STYROFOAM is a registered trademark of the Dow Chemical Company.

Item	Thickness	Size	Density
Standard	At least 25 mm	910 mm x 1820 mm	0.035 g/cm ³

[Example] Method: Post application method using Z-clips

Project



KRP-9

Location	Kyoto, Japan
ASLOC	AL 48010, AL 47040, AL 47110, AL 47150, AL 26022V3, AL 26020
Finish	On-site coating

Projects

MIRI Sgure

Location	Saitama, Japan
ASLOC	AL 47040, AL 47150, AL 26022V3
Finish	On-site coating



Project

Shanghai Expo VENEZUELA Pavilion

Location	Shanghai, China
ASLOC	AW 25890, AL 25000, AL 27070EO
Finish	Substrate surface

