![alcadex logo](Foshan Vanco Building Materials Co.,Limited www.vancopanel.com)

# ALCADEX® A2 FR

Innovative facades by ALCADEX® A2 FR

## Advanced composite panel technology

# Introduction

Our market has been and is currently dominated by plastic core(polyethylene) Aluminum composite panel materials which are not biodegradable fire hazardous materials.

Having been involved on numerous projects and clients internationally, we experienced an increasing number of markets black banning the use composite panels. Aluminum composite panels that incorporated polyethylene based materials.

To maintain our ethos of providing clean facade fixing solutions with these inferior materials, would be contradictory to what we've spent years on.

Having discussed our concerns with a leading machinery producer and engineers in the field, a close relationship was quickly formed to help for composite materials and the required machinery to manufacture what is today Alcadex® A2 FR superior fire rating whist utilizing materials.

We are confident that Alcadex® a proudly Chinese owned and operated company, has taken a positive step forward, in safe sustainable facade.

# Technology

## Technology offers:

+Inorganic matrix core
+Minimizing Carbon foot print
+Fire safety, non−combustible core
+Light weight and high rigidity
+Superior flatness
+Unlimited range of finishes and various metals
+Extensive application use
+No ignitability
+No flammability
+No combustion gases
+No toxicity
+No smoke emanation
+No heat release

# ECO friendly

## Almost all aluminum composite panel manufacturers world wide, use large amounts of plastic materials in the make up of their core materials.

+Plastic take long time to break down, 700 years to disintegrate
+There is no natural process for decomposing plastic
+Plastic largely comes from crude oil
+Burning plastic results in air pollution and toxic ash
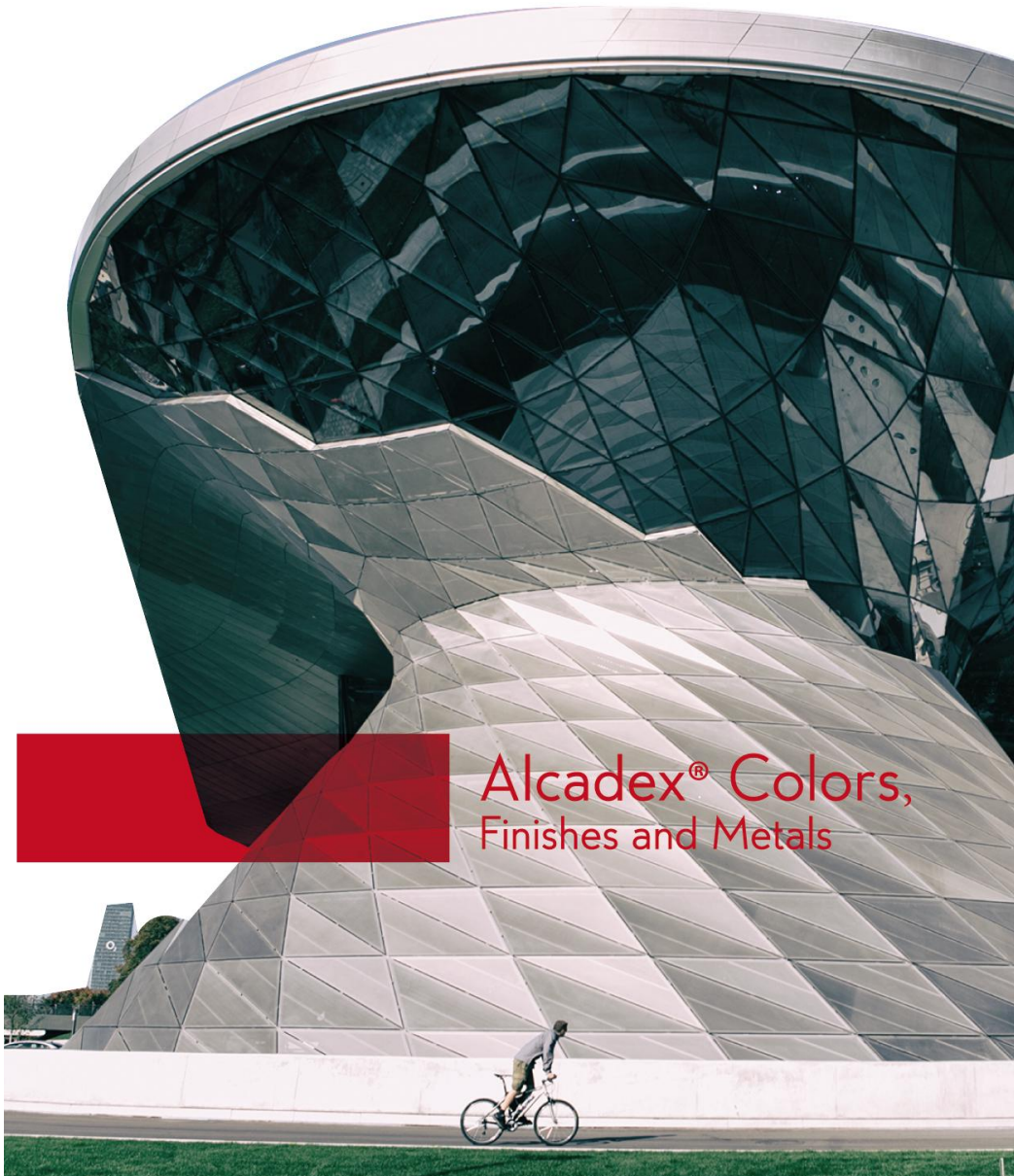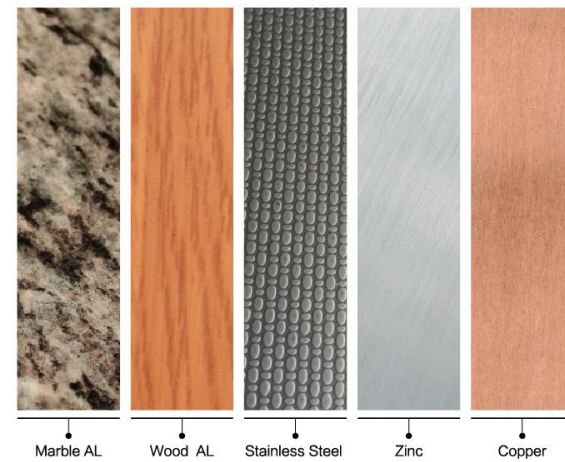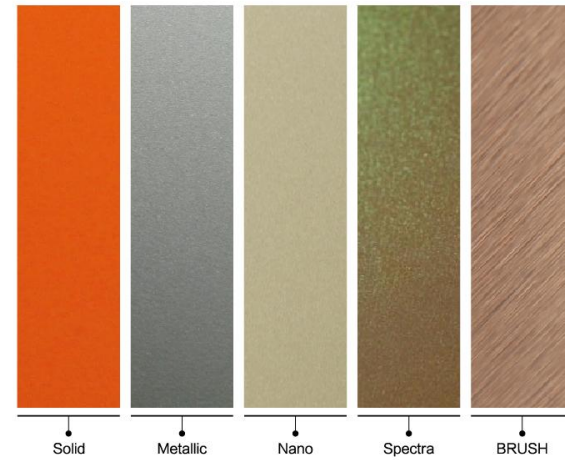+Recycling plastic is economically unviable

# Alcadex® FIRE Performance

| Test Standard | Classification |
|---|---|
| ASTM E84 | FSI 0, SD0 |
| EN13501−1 | A2, s1,d0 |
| EN13501−2:2007+A1:2009 | EI 120 mints |
| NFPA 285 | Pass |
| AS 1530.1 | Non−combustible |
| AS 1530.3 | SFI:0 , SDI:1 |
| BS476, Part 6 & 7 | Class 0 |

# Alcadex® Colors,
Finishes and Metals

| | | | | |
|---|---|---|---|---|
| Solid | Metallic | Nano | Spectra | BRUSH |

| | | | | |
|---|---|---|---|---|
| Marble AL | Wood AL | Stainless Steel | Zinc | Copper |

# Alcadex®
## A2 FR Panel Dimensions

Thickness: 3mm / 4mm / 5mm / 6mm

| Width (mm) | 1000 | 1220/1250 | 1500 | 1575 |
|---|---|---|---|---|
| Length (mm) | 2000−6000 | 2000−11000 | 2000−11000 | 2000−11000 |
| Solid Color | ▲ | ▲ | ▲ | ▲ |
| Metallic Color | ▲ | ▲ | ▲ | ▲ |
| Nano | ▲ | ▲ | ▲ | ▲ |
| Spectra Color | ▲ | ▲ | ▲ | ▲ |
| Brush | ▲ | ▲ | ▲ | ▲ |
| Stone/Wood | ▲ | ▲ | ▲ | ▲ |
| Anodise AL | ▲ | ▲ | ▲ | ▲ |
| Special Metal | ▲ | ▲ | − | − |
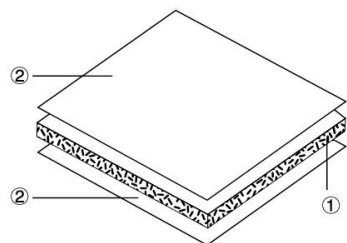
①.Mineral Core
②.AA3003 Alu. 0.50mm

# Alcadex® Hi-Fix System

**Installing Alcadex® is both structurally superior and aesthetically more pleasing when comparing to face sealant jointing systems.**
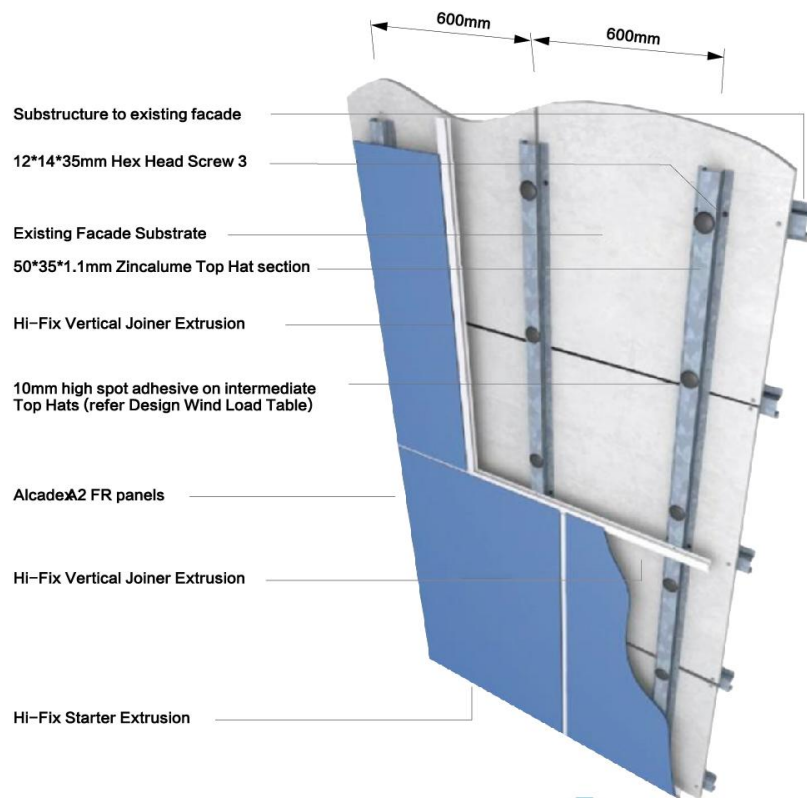
# Alcadex® Hi-Fix Features

+Superior flatness
+Excellent Colour uniformity from panel to panel
+Lightweight and high
+Workability
+Fire Safety
+Superior Structural Performance
+Ease of installation & maintenance
+Expensive CNC machinery not required
+Greater design versatility
+Complete waterproof and self draining
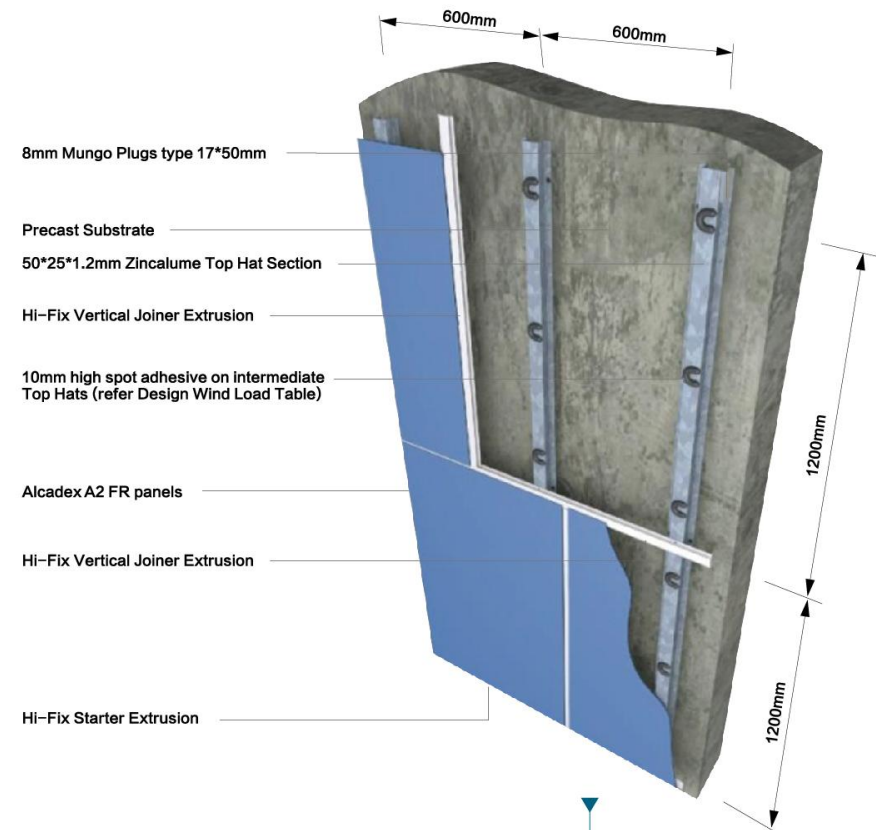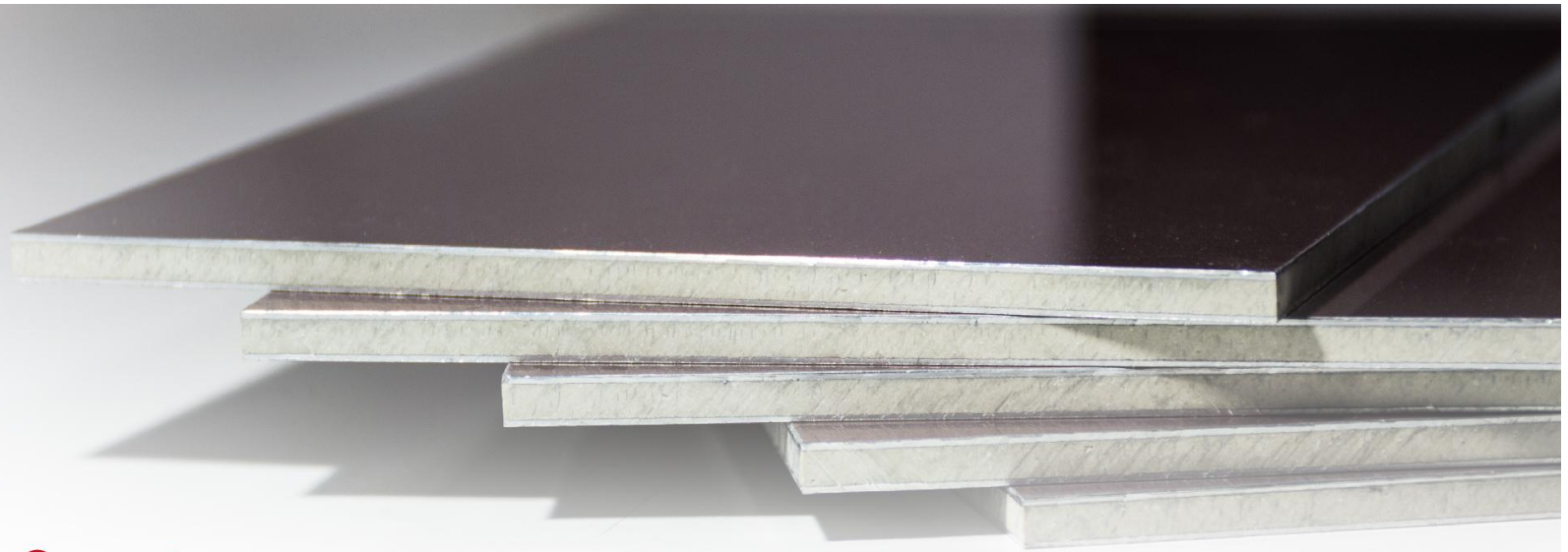+Certified and tested for cyclone prone environments

# Alcadex® Hi-Fix Features

**Substructure to existing facade**

**12*14*35mm Hex Head Screw 3**

**Existing Facade Substrate**

**50*35*1.1mm Zincalume Top Hat section**

**Hi-Fix Vertical Joiner Extrusion**

**10mm high spot adhesive on intermediate Top Hats (refer Design Wind Load Table)**

**Alcadex A2 FR panels**

**Hi-Fix Vertical Joiner Extrusion**

**Hi-Fix Starter Extrusion**

600mm    600mm

● **Existing Facade Substrate**

**8mm Mungo Plugs type 17*50mm**

**Precast Substrate**

**50*25*1.2mm Zincalume Top Hat Section**

**Hi-Fix Vertical Joiner Extrusion**

**10mm high spot adhesive on intermediate Top Hats (refer Design Wind Load Table)**

**Alcadex A2 FR panels**

**Hi-Fix Vertical Joiner Extrusion**

**Hi-Fix Starter Extrusion**

600mm    600mm

1200mm

1200mm

● **Precast Wall Substrate**

# Panel Preparation Comparison

## Alcadex® Hi-Fix   Over 50% Less Handling

- ◆ Cut the panel to size
- ◆ Edge route full perimeter of panel
- ◆ Panel Ready for installation
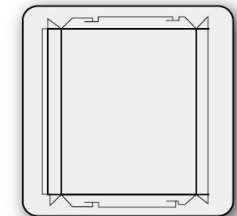
## Traditional Cassette Fix-Leading Brand

- ◆ Cut the panel to size
- ◆ V Groove full perimeter of panel to allow for cassette fold
- ◆ Punch out corners and sides of panel to allow for hanging panel (if not using angle fixing)
- ◆ Fold all four sides of panel (material wastage)
- ◆ Caulk inside fold full perimeter
- ◆ Measure and cut supporting angle (for inside of cassette panel for support)
- ◆ Screw support angle to inside of cassette panel
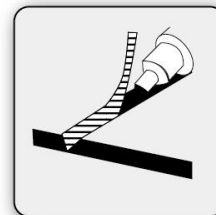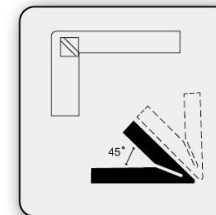- ◆ Panel Ready for installation
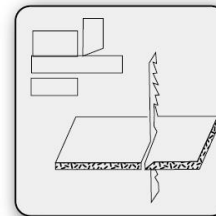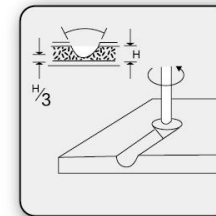
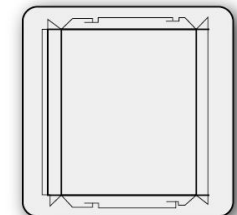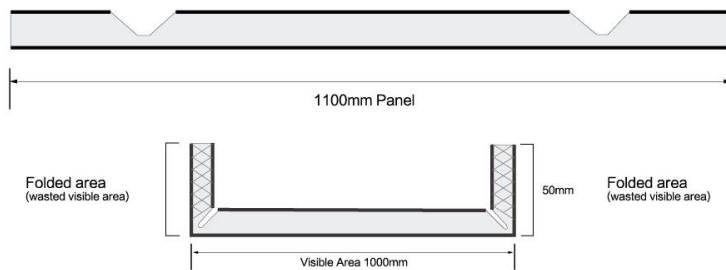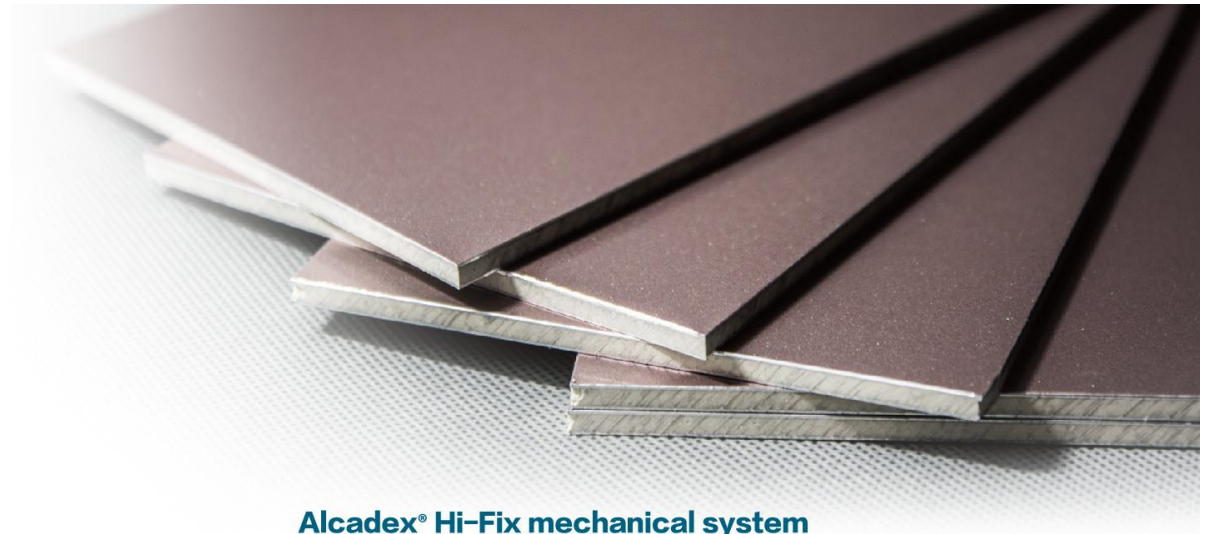| | | |
|---|---|---|
| CUTTING | GROOVING | MAKING BOX |
| WELDING | ANGLES | BENDING |

# Panel Waste Comparison

## Leading Brand-Traditional Cassette (tray) system
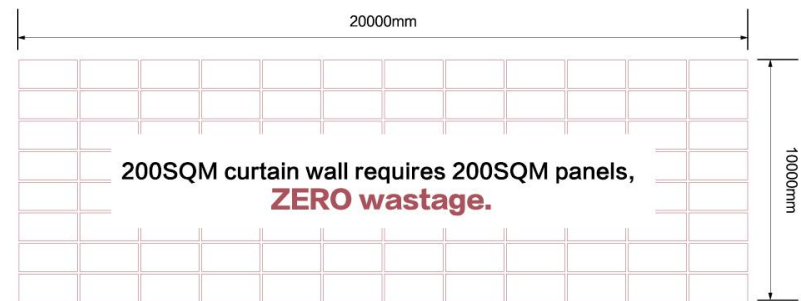### 2m² Visible cover=2100mm x 1100mm(50mm Folds)

1100mm Panel
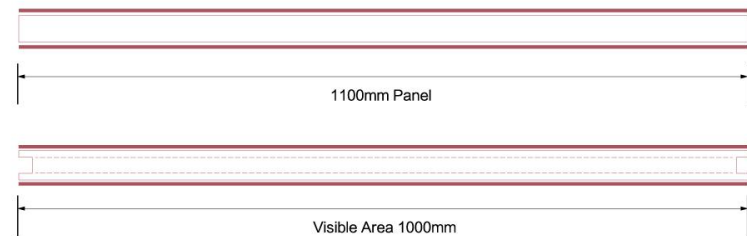
Folded area
(wasted visible area)

Folded area
(wasted visible area)

50mm

Visible Area 1000mm

20000mm

10000mm

**200SQM curtain wall requires 220SQM panels,**
**10% installation wastage.**

**20 m² Folded panel area not visible (Waste)**

## Alcadex® Hi-Fix mechanical system
### 2m² Visible cover=2000mm x 1000mm(No Folds)

1100mm Panel

Visible Area 1000mm

20000mm

10000mm

**200SQM curtain wall requires 200SQM panels,**
**ZERO wastage.**

## Custom Solutions



### Perforated Alcadex®

+Curved Alcadex®
+Machining shapes
+Colour matching solutions
+Custom fixing solutions
+Pre−fabricated Solutions



## Service and Support

**Technical assistance with specification clauses, installation and detailed drawings assistance. Quantity measure of the project materials quantity for both Alcadex® panels and fixing accessories.**

−Assistance with general & technical inquires
−Product detailing into architectural plans
−Custom color and fixing system samples for architectural sample boards
−2D&3D rendered details