

ALUCOBOND®

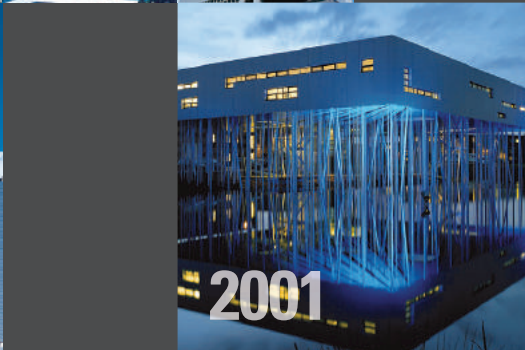
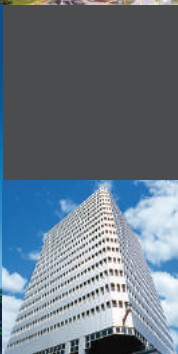
QUESTIONS AND ANSWERS

Creative possibilities with the original, aluminium composite panel



ALUCOBOND®

43 YEARS OF EXCELLENCE





Since its market debut in 1969, ALUCOBOND® has helped to revolutionise the architectural appeal and functional performance of buildings around the globe.

Cities and skylines have swiftly evolved over the last 43 years with new materials and techniques emerging to enable architects to push the boundaries of the previously imaginable. Despite an influx of new materials and ideas, not many have been able to maintain the same standards of quality and durability offered by ALUCOBOND®. For the purpose of comparison, we have compiled some case studies in the following pages. As such, we are proud to reaffirm the contribution made by ALUCOBOND®, over its 43 years history, to the architectural landscape of cities around the globe.

With a strong focus on innovation, we are dedicated to an advancement of the quality and functionality of our products. With a global manufacturing and research network we are able to tap into advances in new materials and surfaces to keep ALUCOBOND® ahead of its rivals in terms of creativity and versatility

Your Global ALUCOBOND® Team

Common Problem #1:

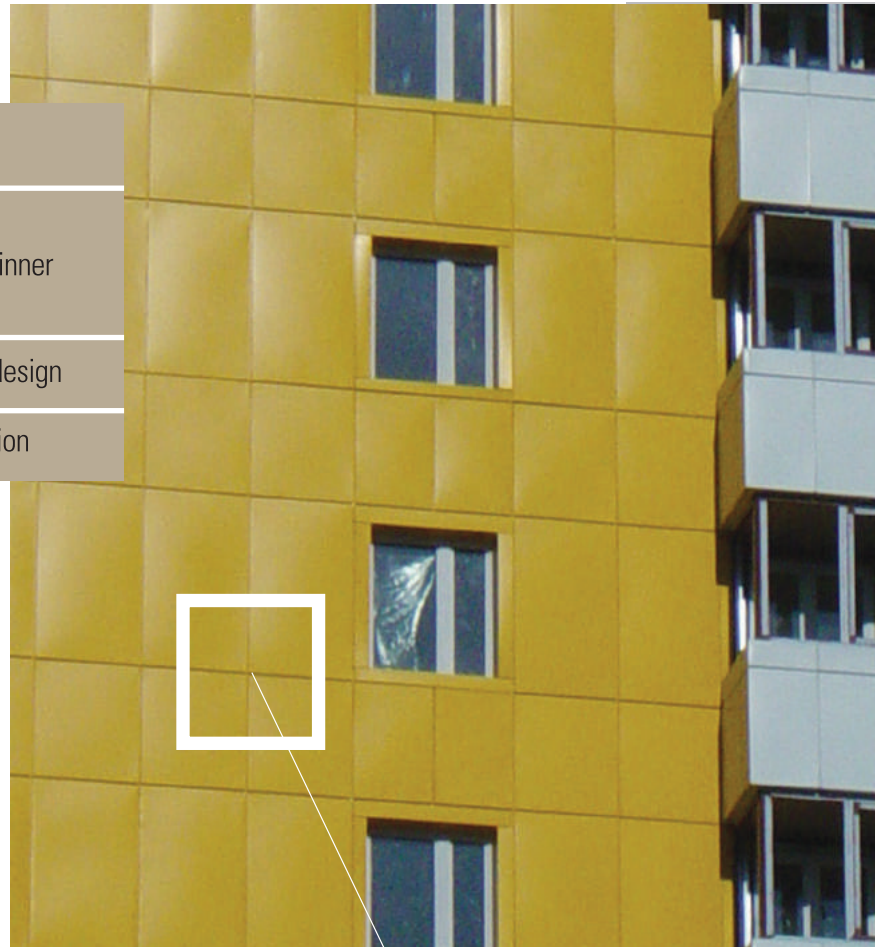
UNEVENNESS

Brand:

OTHER COMPOSITE PANELS

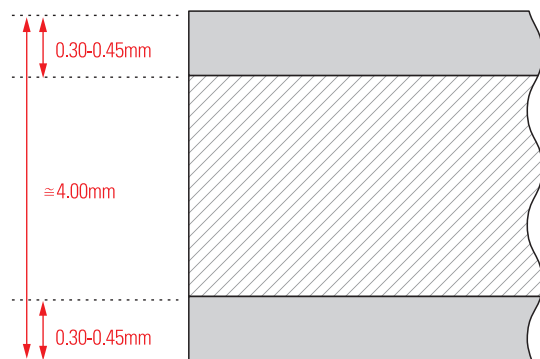
ROOT CAUSE

- | | |
|---|--|
| 1 | Insufficient panel strength due to thinner aluminium skins |
| 2 | Incorrect system design |
| 3 | Improper installation |



OTHER ALUMINIUM COMPOSITE PANEL

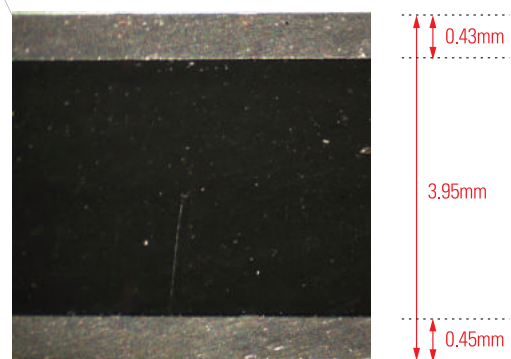
When factors such as support structure, panel size and wind or heat loss are similar, the susceptibility to material sag and warp is higher and more visible in many products which claim to be "equivalent" to ALUCOBOND®



ALUMINIUM SKIN
RECYCLED
POLYETHYLENE CORE
ALUMINIUM SKIN

MICROSCOPIC PICTURE

BRAND: "M"
TESTED BY: MAEK CONSULTANT PTE LTD
DATE: 14 NOVEMBER 2008

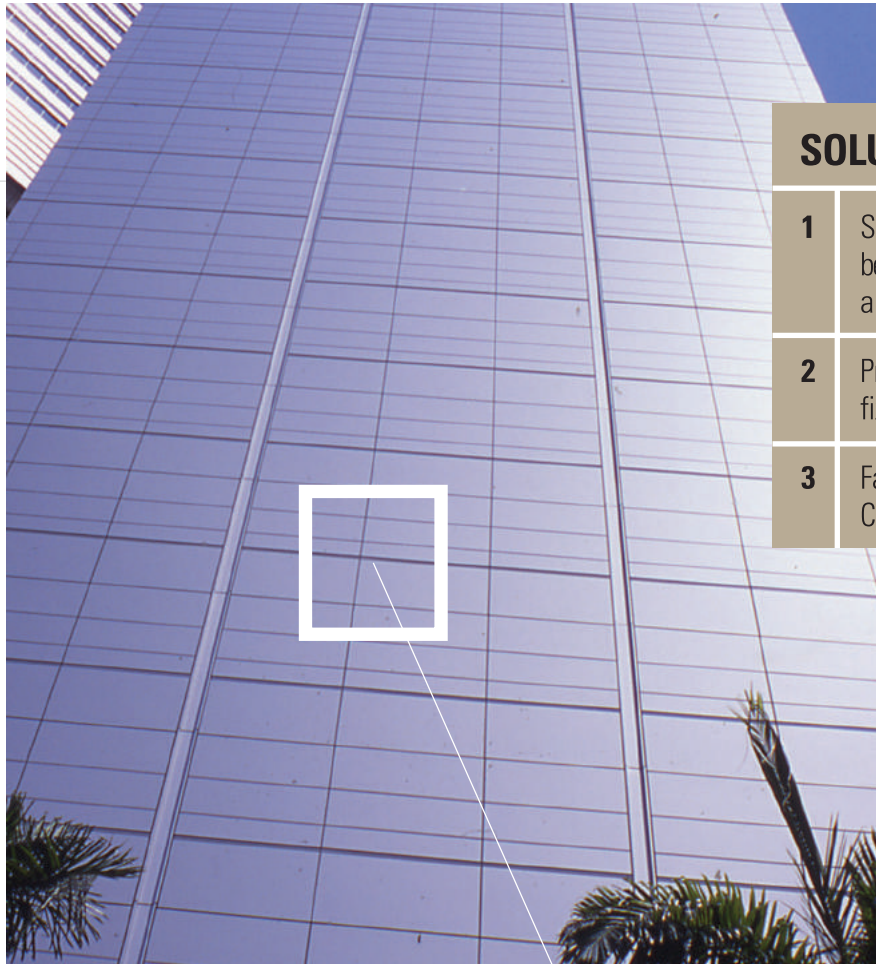


Solution:

PERFECT FLATNESS

Brand:

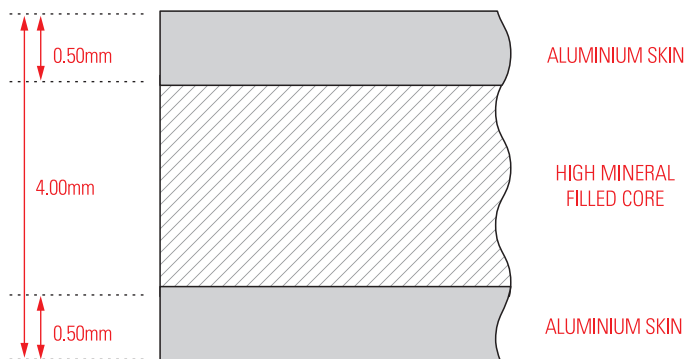
ALUCOBOND®



SOLUTION

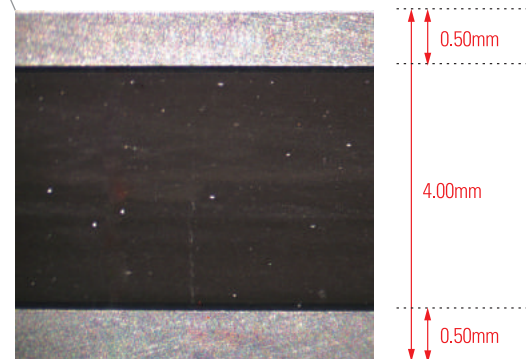
- 1** Superior panel strength due to better material composition & aluminium skins thickness
- 2** Proven and patented* fixing systems
- 3** Fabricator Certification Programme

ALUCOBOND PANEL



MICROSCOPIC PICTURE

BRAND: ALUCOBOND PLUS
 TESTED BY: MAEK CONSULTANT PTE LTD
 DATE: 14 NOVEMBER 2008



*SYSTEMS PATENTED IN PEOPLE'S REPUBLIC OF CHINA

Common Problem #2:

DELAMINATION

Brand:

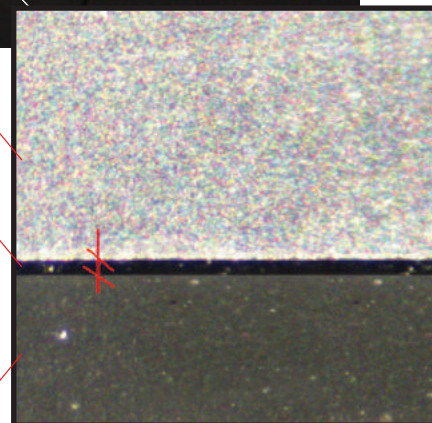
OTHER COMPOSITE PANELS

ROOT CAUSE

- 1 Inferior and / or insufficient adhesive between aluminium skins & core material
- 2 "Bleeding" of contaminants in recycled polyethylene core breaks down bond between skins and core
- 3 Poor quality control



ALUMINIUM SKIN
ADHESIVE
25µm (0.025mm)
RECYCLED
POLYETHYLENE CORE



MICROSCOPIC PICTURE

BRAND: A1
TESTED BY: MAEK CONSULTANT PTE LTD
DATE: 14 NOVEMBER 2008

Solution:

PROVEN QUALITY SINCE 1969

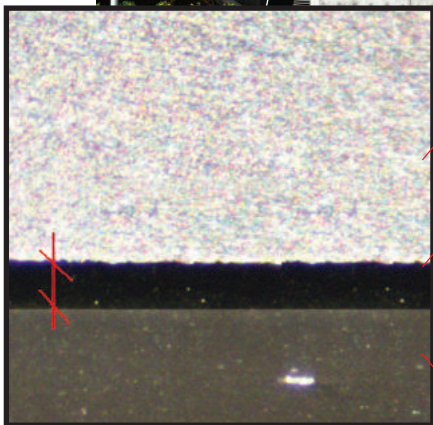
Brand:

ALUCOBOND®



SOLUTION

- 1 Up to 3 times thicker layer of premium adhesive
- 2 High mineral filled core
- 3 International quality standards and manufacturing control



ALUMINIUM SKIN

ADHESIVE

75µm (0.075mm)

HIGH MINERAL FILLED CORE



ALUMINIUM CENTRUM HOUTEN, NETHERLANDS

The headquarters of the Dutch aluminium industry, the Aluminium Centrum, is fully clad with ALUCOBOND® composite materials.

MICROSCOPIC PICTURE

BRAND: ALUCOBOND PLUS
TESTED BY: MAEK CONSULTANT PTE LTD
DATE: 14 NOVEMBER 2008

Common Problem #3:

CRACKS AND DENTS

Brand:

OTHER COMPOSITE PANELS

ROOT CAUSE

- 1 Use of inferior aluminium alloy (eg 1xxx series)
- 2 Inconsistent panel thickness can result in weaker panels
- 3 Use of recycled polyethylene core materials
- 4 Use of incorrect fabrication equipment



ALUMINIUM ALLOY

1xxx series aluminium alloy is an inferior metal commonly used in cooking pots and pans. Its lack of tensile strength may result in pressure cracks and dents when used in composite panels.

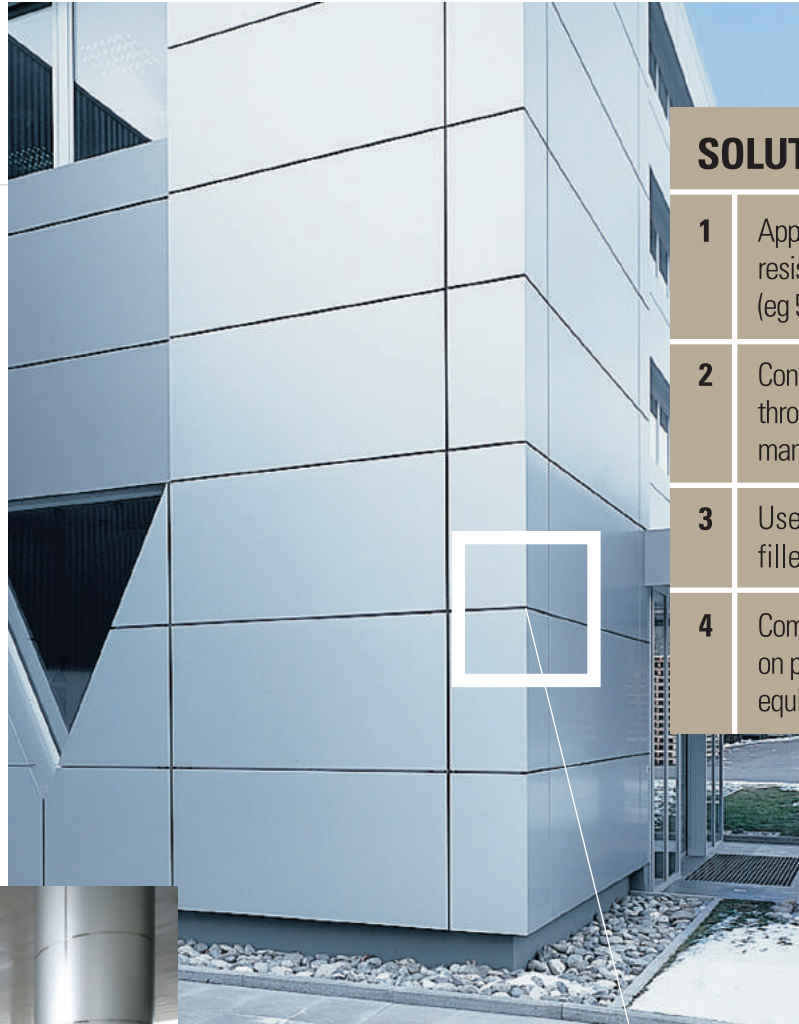


Solution:

CONSISTENT CORNERS AND CURVES

Brand:

ALUCOBOND®



SOLUTION

- 1** Appropriate use of corrosion resistant aluminium alloy (eg 5xxx series)
- 2** Consistent product quality through state of the art manufacturing processes
- 3** Use of high mineral filled core
- 4** Complementary consultancy on proper fabrication equipment & techniques



Common Problem #4:

COLOUR FADING, PEELING & INCONSISTENCIES

Brand:

OTHER COMPOSITE PANELS

ROOT CAUSE

- 1 Use of inferior paint system
- 2 Insufficient paint thickness
- 3 Poor quality control during painting process



WEATHERING TEST RESULT

PAINT QUALITY OF INFERIOR ALUMINIUM COMPOSITE PANEL



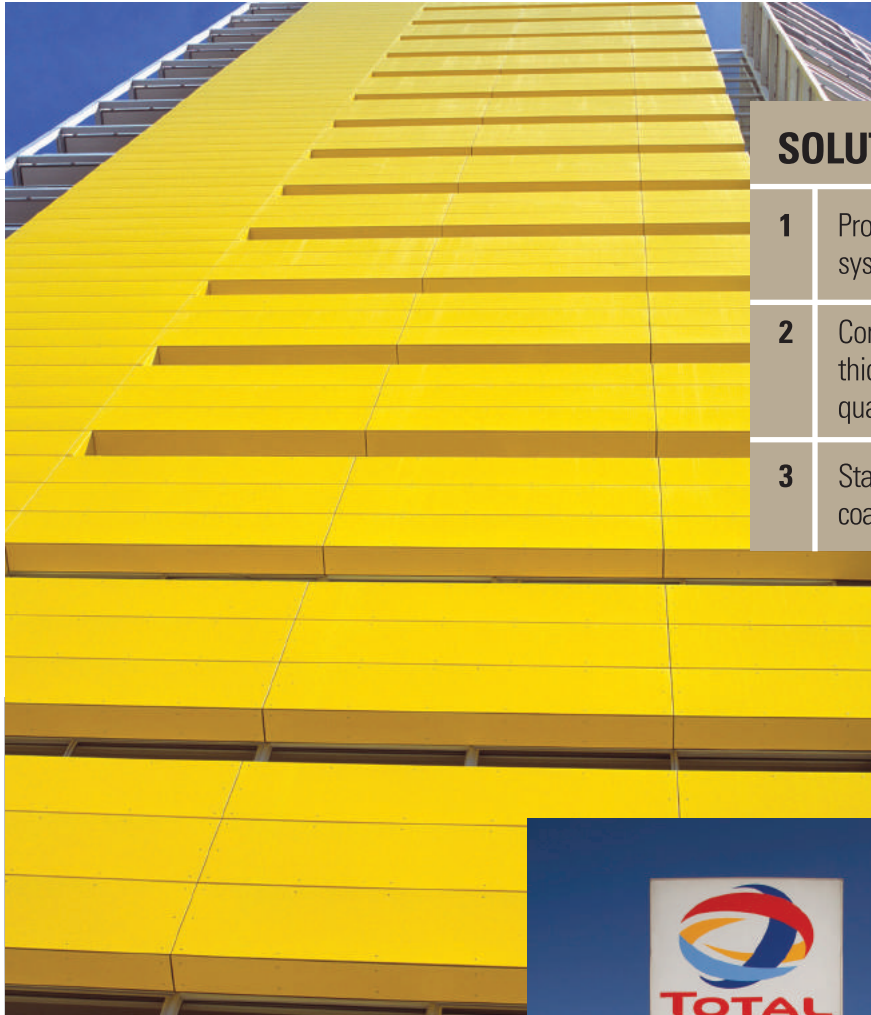
FLORIDA EXPOSURE 45 SOUTH. EXPOSED SINCE 1987

Solution:

LONG COLOUR DURABILITY

Brand:

ALUCOBOND®



SOLUTION

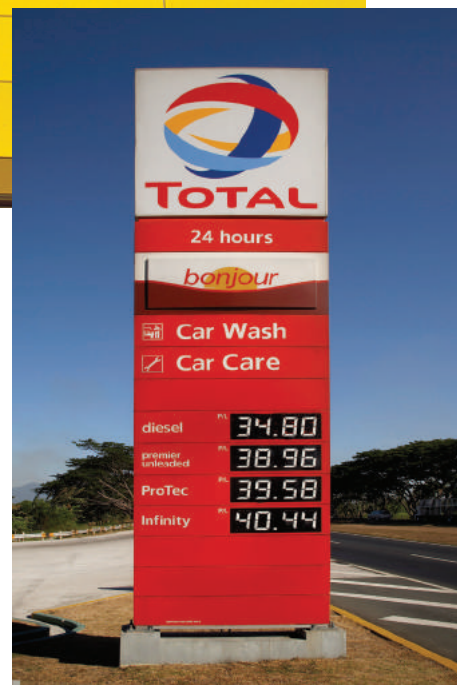
- 1 Proven quality of paint systems since 1969
- 2 Consistent coating thickness through stringent quality control
- 3 State of the art in-house coil coating facilities

WEATHERING TEST RESULT

ALUCOBOND QUALITY



FLORIDA EXPOSURE 45 SOUTH. EXPOSED SINCE 1987



Common Problem #5:

STREAKING & STAINING

Brand:

OTHER COMPOSITE PANELS

ROOT CAUSE

- 1 Poor fixing system design
- 2 Poor quality and improper use of sealant
- 3 Poor fabrication and installation of panels



BUILDING CLEANED REGULARLY
BUT STAINING CANNOT BE REMOVED



STREAKING & STAINING

Poor application and quality of façade products can lead to unsightly stains and fungal growth.

Solution:

LONG-TERM FAÇADE CLEANLINESS

Brand:

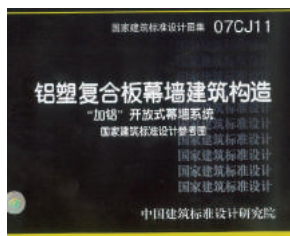
ALUCOBOND®



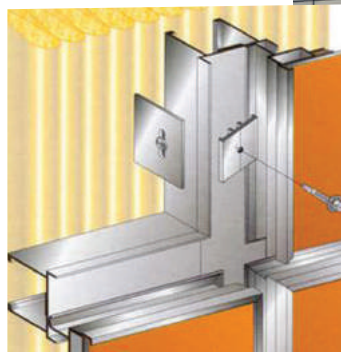
SOLUTION

- 1 Proven and patented* open joint system design minimizes streaking and staining
- 2 Complementary consultancy on proper fabrication and installation techniques
- 3 ALUCOBOND® Fabricator Certification Programme

TEN YEAR OLD FAÇADE OF ALUCOBOND® OFFICES WITH A PROVEN SYSTEM



*SYSTEMS PATENTED IN PEOPLE'S REPUBLIC OF CHINA



PROVEN AND PATENTED* OPEN JOINT FIXING SYSTEM

Common Problem #6:

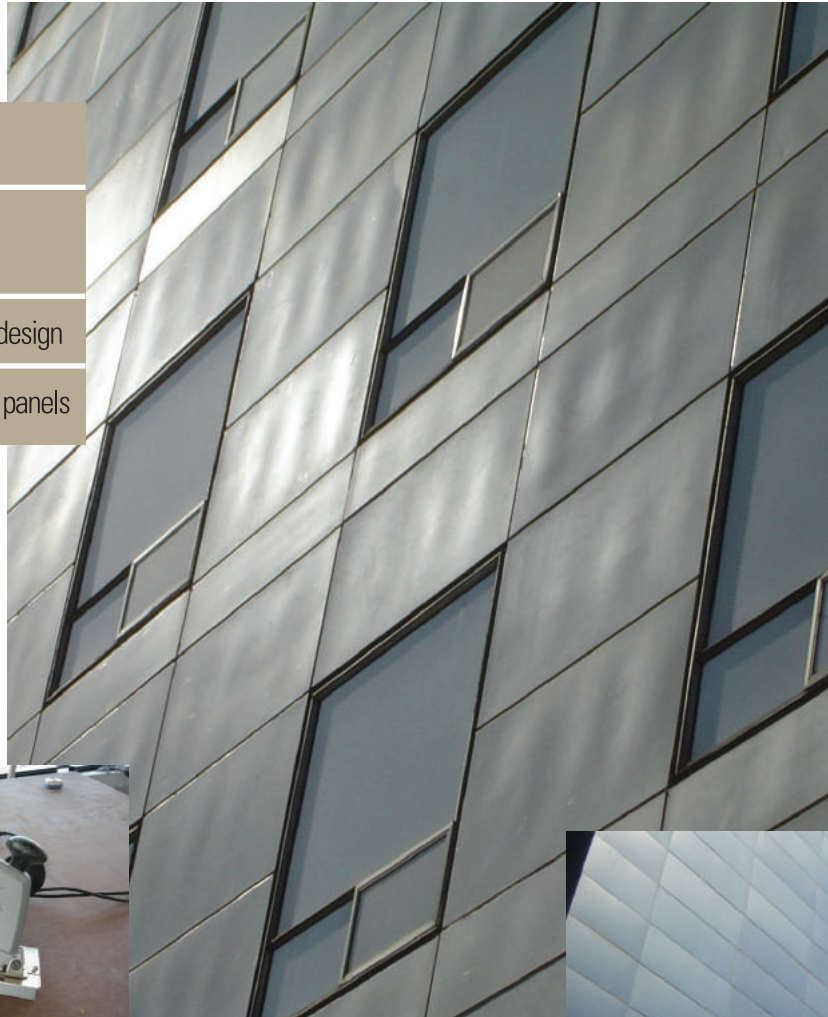
POORLY CONSTRUCTED FAÇADE

Brand:

OTHERS

ROOT CAUSE

- 1 Poor fabrication & installation techniques
- 2 Incorrect fixing system design
- 3 Use of inferior cladding panels



MANUAL FABRICATION OF PANELS USING LOW SKILLED LABOUR, INFERIOR EQUIPMENT AND TECHNIQUES.



Solution:

INNOVATIVE FAÇADE SOLUTIONS

Brand:

ALUCOBOND®



SOLUTION

- 1 Complementary consultancy on proper fabrication and installation techniques
- 2 Proven and patented* fixing system design. Supply of pre-routed panels using in-house state of the art manufacturing equipment
- 3 High quality cladding materials proven since 1969

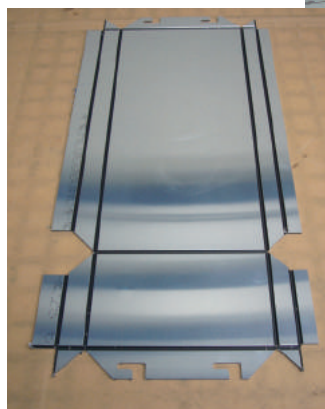


GRAND INDONESIA
JAKARTA, INDONESIA

Approx 150,000m² of ALUCOBOND® composite materials.



SUPPLY OF IN-HOUSE PRE-ROUTED PANELS



*SYSTEMS PATENTED IN PEOPLE'S REPUBLIC OF CHINA

Create the difference.

ALUCOBOND

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