



ACTIVE COMPOSITE TECHNOLOGIES



# A1 Façade

September 2018

## Day 1 - Uden/Eindhoven

### *Introduction & Visiting projects*

#### **10.00 hours**

Arrival guests and presentation A1 Façade projects in The Netherlands and South Africa by ACT.

#### **13.00 hours**

Lunch

#### **14.00 hours**

Visiting projects in Doetinchem and Nijmegen.

#### **19.00 hours**

Diner

## Day 2 - Uden

### *Production techniques*

#### **09.30 hours**

Workshop: how to produce A1 Façade by Harold van Zutphen and Geert van Sommeren ([www.beconcrete.nl](http://www.beconcrete.nl)).

#### **13.00 hours**

Lunch

#### **Subjects:**

- |                            |                                   |
|----------------------------|-----------------------------------|
| - standard panel           | - fillers, like sand and pigments |
| - different laminates      | - sharp edges                     |
| - core materials, like EPS | - use of moulds                   |
|                            | - fasteners                       |

#### **14.00 hours**

Workshop part 2, including demonstration of A1 spraying machine.

#### **19.00 hours**

Diner

## Day 3 - Amsterdam

### *Visiting projects*

#### **09.30 hours**

Visit to A1 Façade projects such as:

- Fly-over Amersfoort
- Mahler ceiling
- Olympic Hotel
- Couches Stedelijk Museum

#### **Supper and finish** in Amsterdam

You have the opportunity to stay in Amsterdam or drive back with us to Uden/Eindhoven.

# Day 1

*Introduction & Visiting projects*

**Presentation A1 Projects**  
The Netherlands & South Africa

**Lunch**

**Visiting 2 projects**  
Doetinchem and Nijmegen

**Diner**



# Fly-over in concrete look

## Advantages:

- ✓ Light weight
- ✓ Easy installation
- ✓ Concrete look

**Project date:** 2015

**Where:** The Netherlands - Amersfoort

**Designed by:** Van Boekel and Be Concrete

### How it's made:

The side panels are made of A1 with an aluminum structure. The weight is now 150 kg per panel, which if in concrete would be a tenfold.





# Fly-over in concrete look

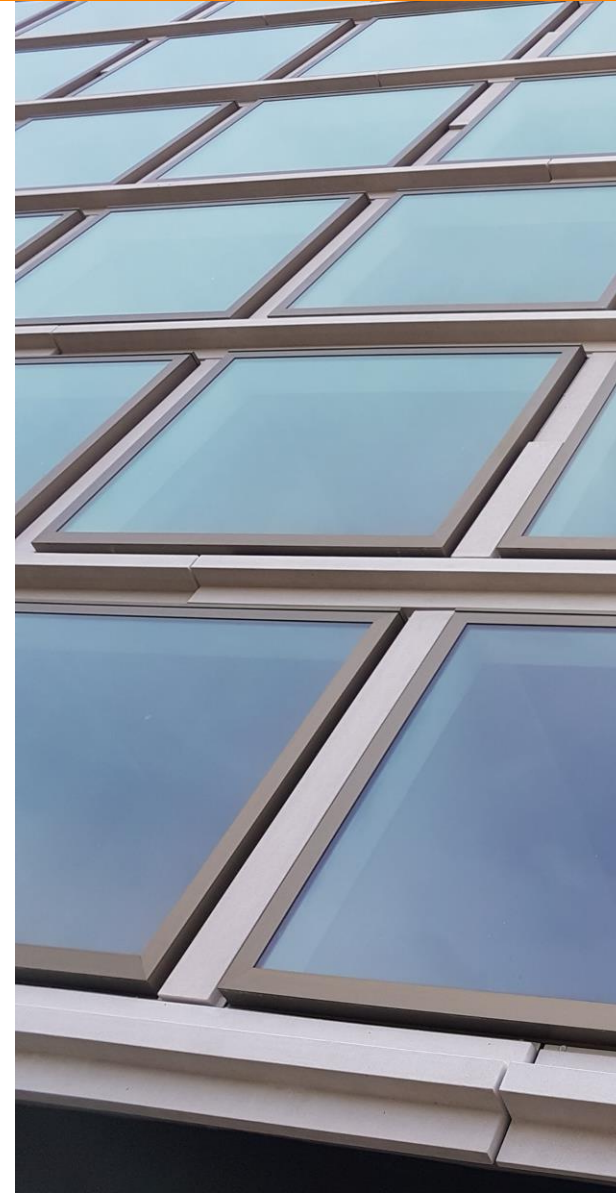
## Advantages:

- ✓ Light weight
- ✓ Easy installation
- ✓ Concrete look





# Amsterdam Olympic Hotel



**Project date:** 2018

**Where:** The Netherlands - Amsterdam

**Designed by:** Poly Products

**How it's made:**

A1 was mixed with sand and applied in a mould with brush, roller or by spraying. Several layers of A1 Triaxial fibre were used to reinforce the panels.

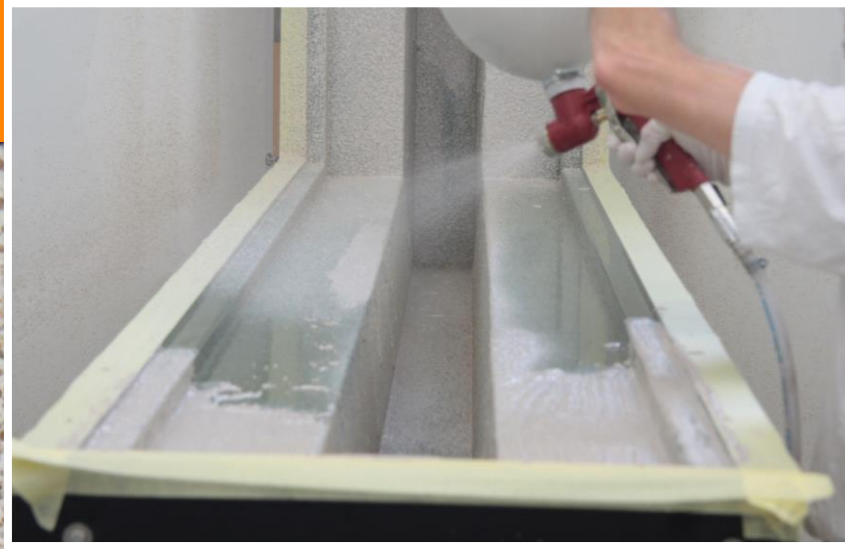




# Amsterdam Olympic Hotel

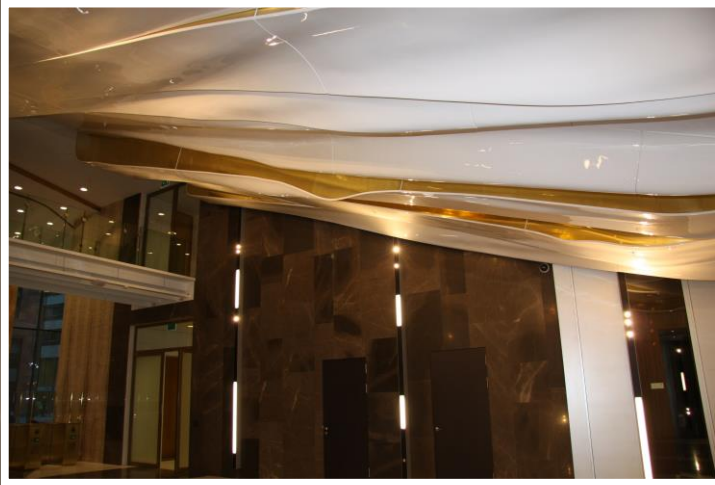
## Advantages:

- ✓ Freedom of form
- ✓ Light weight
- ✓ Natural feel and look





# Ceiling office Mahler - Amsterdam



**Project date:** 2009

**Where:** The Netherlands - Amsterdam

**Designed by:**

Architect: Erick van Egeraat

Production: Poly Products

**How it's made:**

The ceiling is made of A1.  
Total surface area of 800 m2, none of  
the elements is the same.

**Video:**

<https://www.youtube.com/watch?v=f0ZvF3nCwjg>



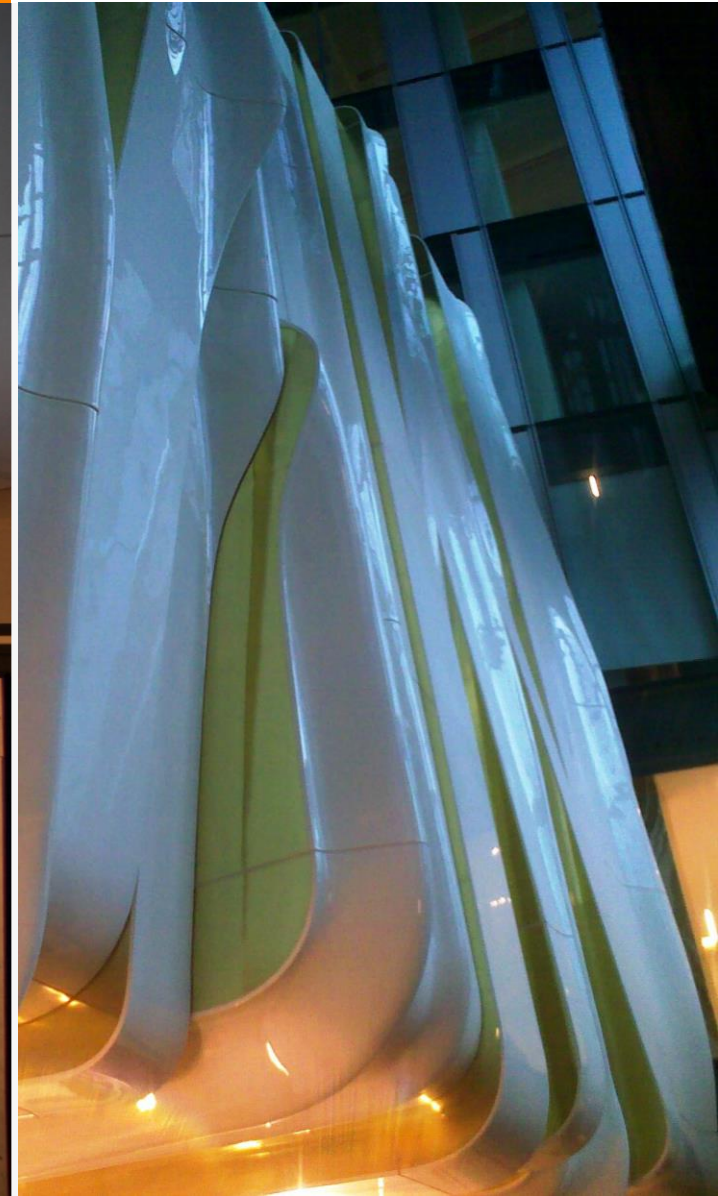


# Ceiling office Mahler - Amsterdam



## Advantages:

- ✓ Freedom of form
- ✓ Fire resistant





# Office panels - Amsterdam

## Advantages:

- ✓ Fire resistant
- ✓ Very fine details

**Project date:** 2018

**Where:** The Netherlands - Amsterdam

**Designed by:** Poly Products

## How it's made:

a silicone mould was made of a milled MDF sheet. By using various depth and thickness the shapes of tulips were created. Panels are made of A1 in combination with yellow sand.





# Panels in wood structure - Rotterdam

**Project date:** 2011

**Where:** The Netherlands – Rotterdam - Ahoy (indoor event center)

**Produced by:** Kool Polyester

**How it's made:**

A1 with layers of A1 Triaxial fibre, finished with a red/orange coating. Because of the fire retardant properties A1 was chosen, to replicate the fine wood structure of an original wooden panel.

**Advantages:**

- ✓ Replication of wood structure
- ✓ Fire resistance





# Concrete look benches Stedelijk Museum - Amsterdam

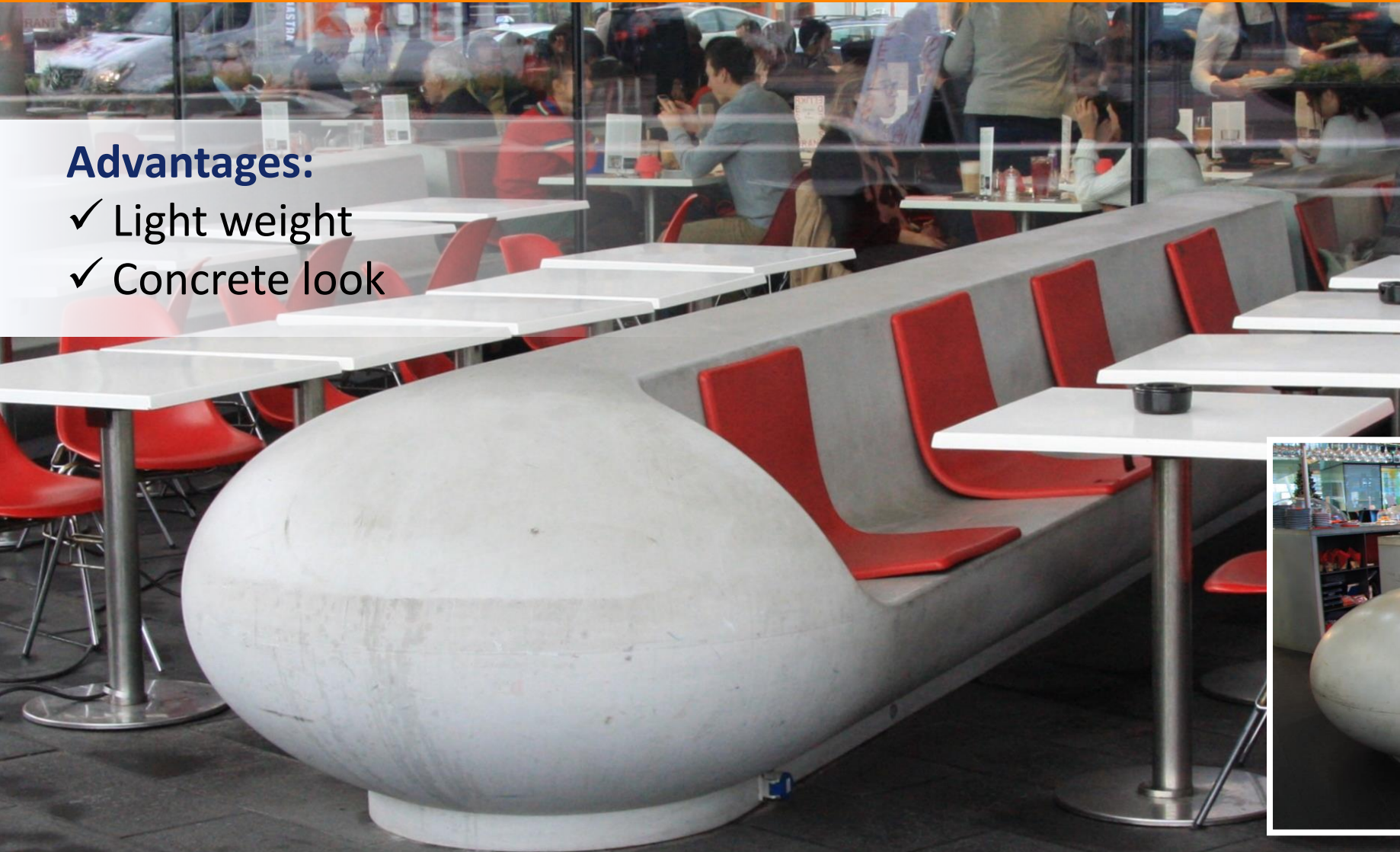
## Advantages:

- ✓ Light weight
- ✓ Concrete look

**Project date:** 2012

**Where:** The Netherlands - Amsterdam

**Designed by:** BeConcrete





# Renovation project - Nijmegen



**Project:** Renovation of the outside of several apartments

**Project date:** 2016

**Where:** The Netherlands - Nijmegen

**Designed by:** Be Concrete

**How it's made:**

The panels are made of A1 mixed with yellow sand and reinforced with A1 Triaxial fibre.





# Renovation project - Nijmegen



## Advantages:

- ✓ Natural feel and look
- ✓ Easy and fast production
- ✓ Light weight because
- ✓ of renovation



# Tax office - Doetinchem - The Netherlands

**Project:** Tax office Doetinchem

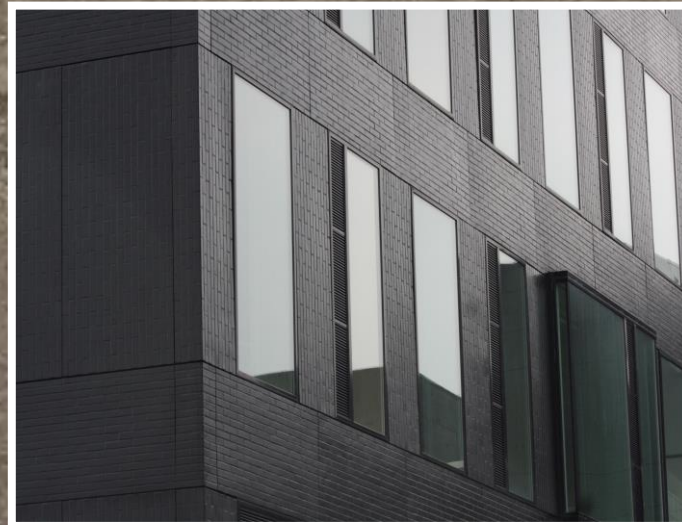
**Project date:** 2014

**Where:** The Netherlands - Doetinchem

**Designed by:** Lensvelt/Ekosiet

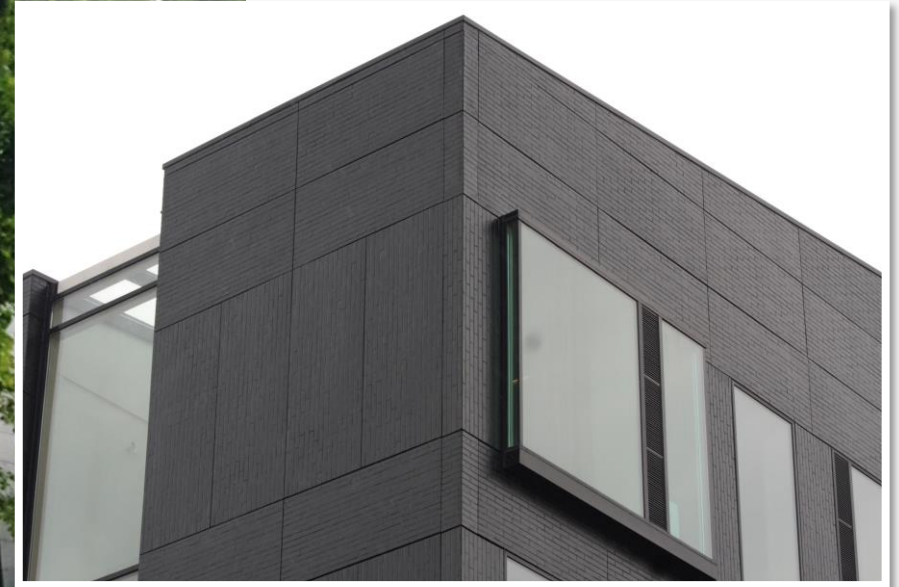
**How it's made:**

From the original façade a mould was extracted which was used for the production of A1 panels.





# Tax office - Doetinchem - The Netherlands



## Advantages:

- ✓ A1 could reproduce the original façade
- ✓ Light weight
- ✓ Fire resistance



# Columns in shopping centre - The Netherlands

## Advantages:

- ✓ Fine details
- ✓ Natural feel and look
- ✓ High impact resistance
- ✓ Freedom of form (columns)



**Project date:** 2009

**Where:** Zoetermeer

**Designed by:** Vazupol

## How it's made:

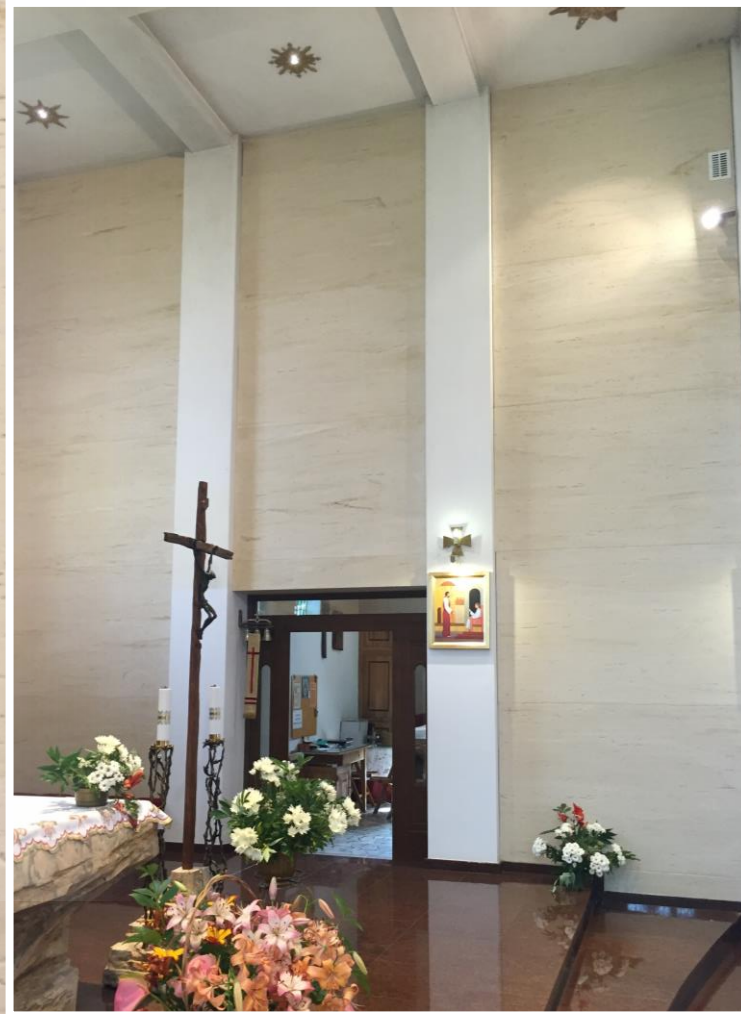
Columns were made by using a mould. A1 was mixed with yellow sand reinforced with several layers of A1 Triaxial fibre.



# Church Katowice - Travertine look - Poland

## Advantages:

- ✓ With A1 its easy to imitate different structures, such as travertine
- ✓ Lightweight >> easy installing
- ✓ Thin panels by using traxial fibre >> low material consumption
- ✓ Using a mould >> fast and easy production
- ✓ A1 is fire retardent



**Project date:** 2015 - present

**Where:** Church in Poland  
(Dobieszowice)

**Designed by:** Jacek Kicinski

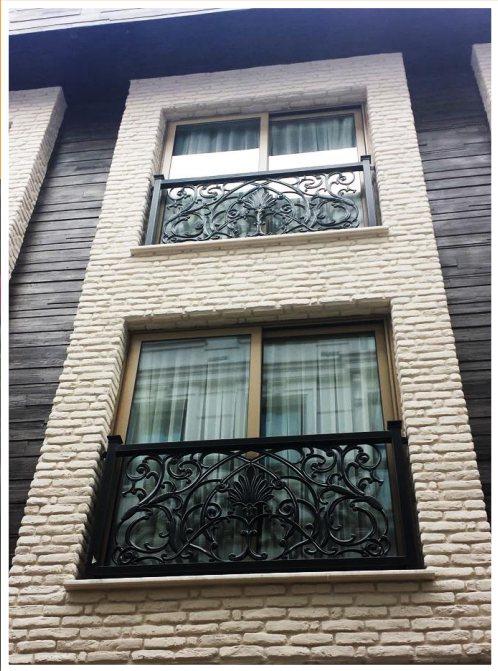
## How it's made:

The lightweight panels were made in a silicon mould and nicely connected on side.





# Hotel - Lightweight panels - Turkey



**Project date:** 2015

**Where:** Turkey - Istanbul

**Designed by:** Suberta

**How it's made:**

In the Sultanah met area in the Turkish city Istanbul a successful A1 project has been finished. Both the stone and wood facades are made of A1.

## Advantages:

- ✓ Easy imitating different structures
- ✓ Light weight
- ✓ Thin panels >> low material consumption
- ✓ Fast and easy production
- ✓ Fire retardent





# Theme park IMG - Light weight panels - Dubai



**Project date:** 2015/2016

**Where:** City of Arabia - Dubai

**Designed by:** Atech

**How it's made:**

Panels made by using a silicone mould and laminating by hand. Painted afterwards.

## Advantages:

- ✓ Light weight
- ✓ Thin panels by using A1 Traxial fibre >> low material consumption
- ✓ Fire retardent



# Panels in natural zinc look - South Africa

## Advantages:

- ✓ Excellent imitation of zinc
- ✓ Panels with a complex shape



**Project:** Protea Place

**Project date:** 2010

**Where:** Protea building - South-Africa - Johannesburg

**Designed by:** Paragon Architects

## How it's made:

The panels are made out of A1 in a natural zinc look. Zinc powder has been added to the A1 in the first layer, to create a solid and smooth surface. After the first layer, several layers with glass fibre were laminated into the A1 material. After demoulding the panels were sanded to get the zinc on the surface. To protect the zinc surface they put 3 layers of sealer on top.



# 54 on Bath

## Advantages:

- ✓ Natural feel and look
- ✓ Sand stone imitation

**Project:** Panels

**Project date:** 2003

**Where:** South Africa - Johannesburg





# Panels - OSV - Ukraine

**Project:** Panels

**Project date:** August 2011

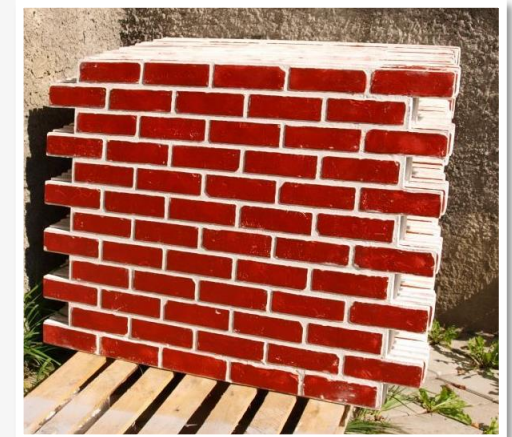
**Where:** Ukraine, Kyiv International Airport

**Designed by:** OSV

**How it's made:** A1 + rigid PU foam panels

## Advantages:

- ✓ Excellent replica of the natural bricks
- ✓ Lightweight
- ✓ Strong adhesion with PU foam
- ✓ Easy to process
- ✓ Stable to weather conditions





# Panels - OSV - Ukraine

## Advantages:

- ✓ Excellent replica of the natural bricks
- ✓ Light weight
- ✓ Strong adhesion with PU foam
- ✓ Easy to process
- ✓ Stable to weather conditions



**Project:** Panels

**Project date:** February 2013

**Where:** Ukraine, Oleshky, OSV plant

**Designed by:** OSV

**How it's made:** A1 + rigid PU foam panels





# Sasol building - South Africa

**Project:** Sasol building

**Project date:** 2014

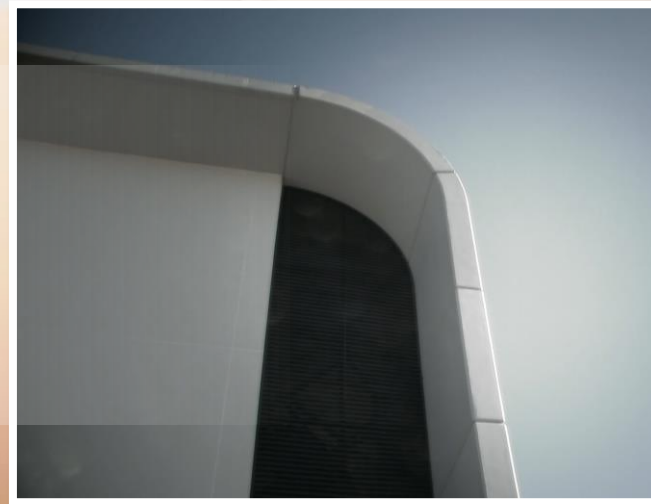
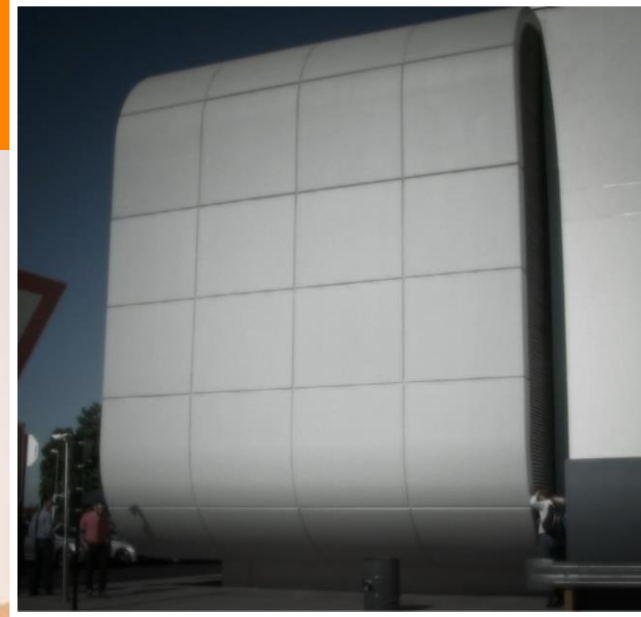
**Where:** Johannesburg – South Africa

**How it's made:**

EPS covered with a layer of Triaxial fibre reinforced A1.

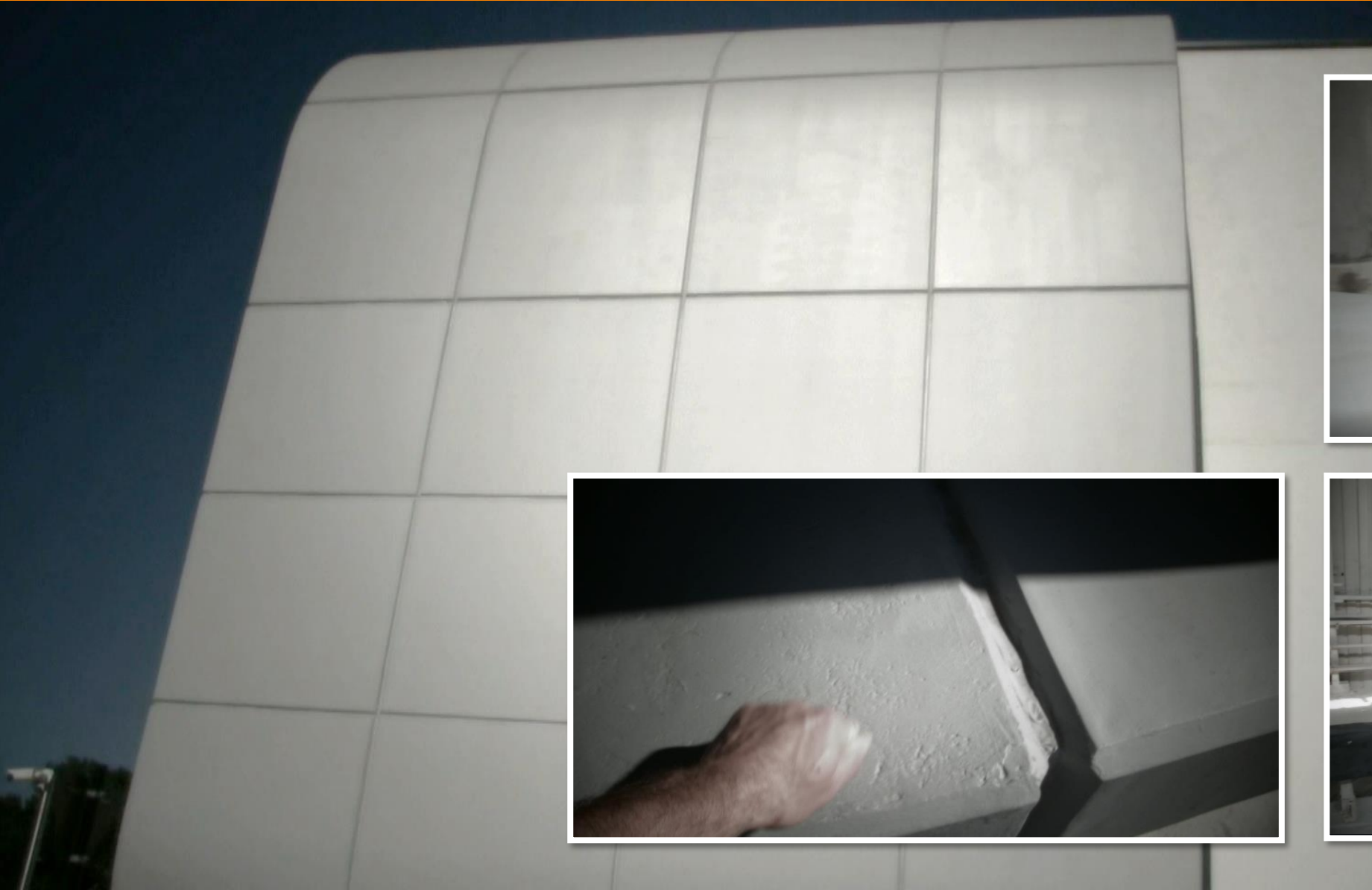
## Advantages:

- ✓ Light weight by the use of EPS core
- ✓ Concrete imitation
- ✓ Support construction





# Sasol building - South Africa





# Dome Monte Casino Boulevard - South Africa



**Project:** Dome Monte Casino

**Project date:** 2000

**Where:** Johannesburg - South Africa



# Questions??



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