

polycon<sup>®</sup>

**polycon** 

Glass Fiber Reinforced Concrete

# What is Glass Fiber Reinforced Concrete

Glass-fiber Reinforced Concrete (GFRC) is a cement-based composite material reinforced with alkali-resistant fibers. The fibers add flexural, tensile and impact strength and the resulting material allows the production of strong yet lightweight products used in architectural, building, civil engineering and many other applications.

cement, sand, AR glass fibre, water ...



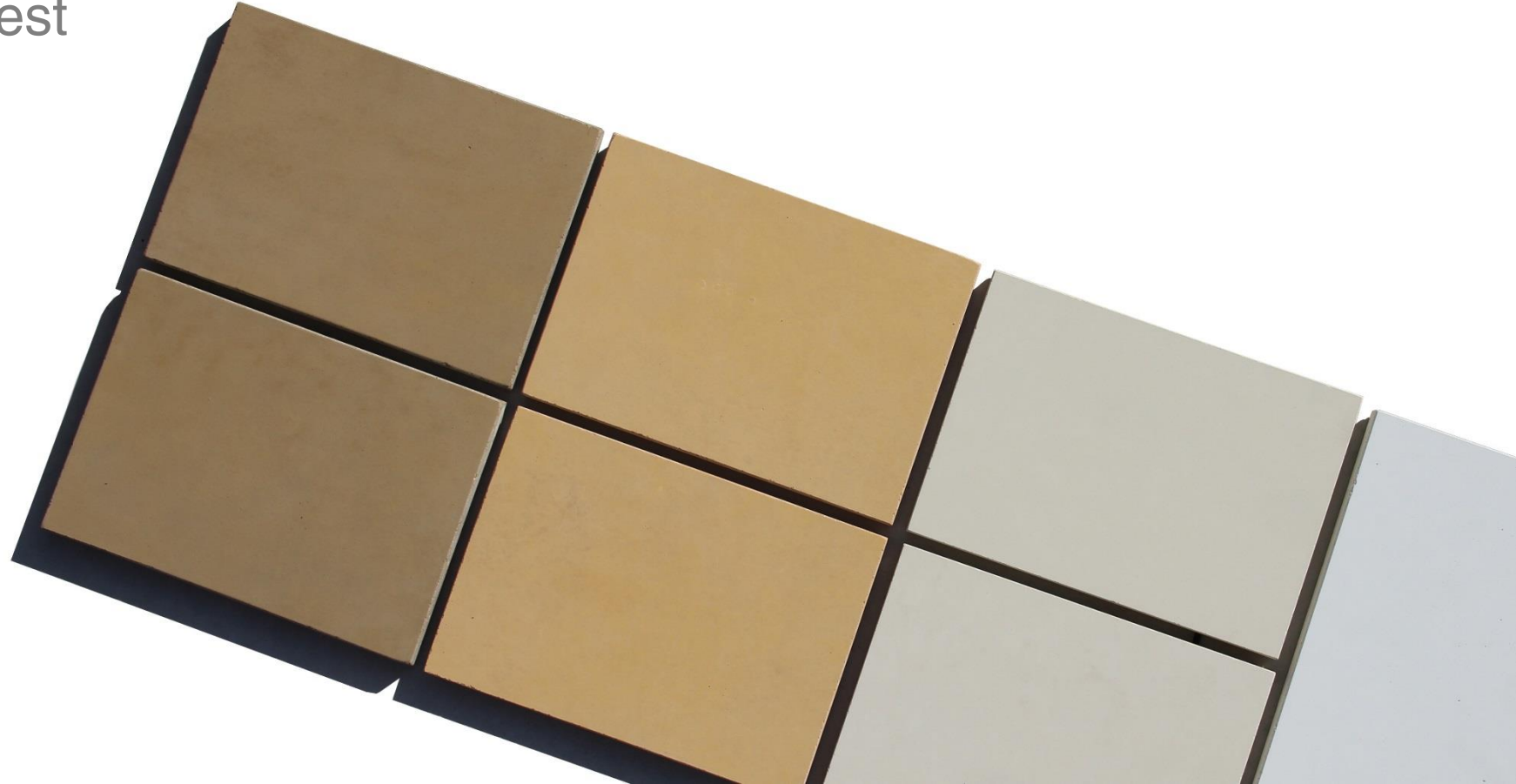
# What is Glass Fiber Reinforced Concrete

Composite material polycon is reinforced with alkali-resistant fibers. AR glassfiber is specially formulated to have a high degree of resistance to alkali attack and high durability in cement.



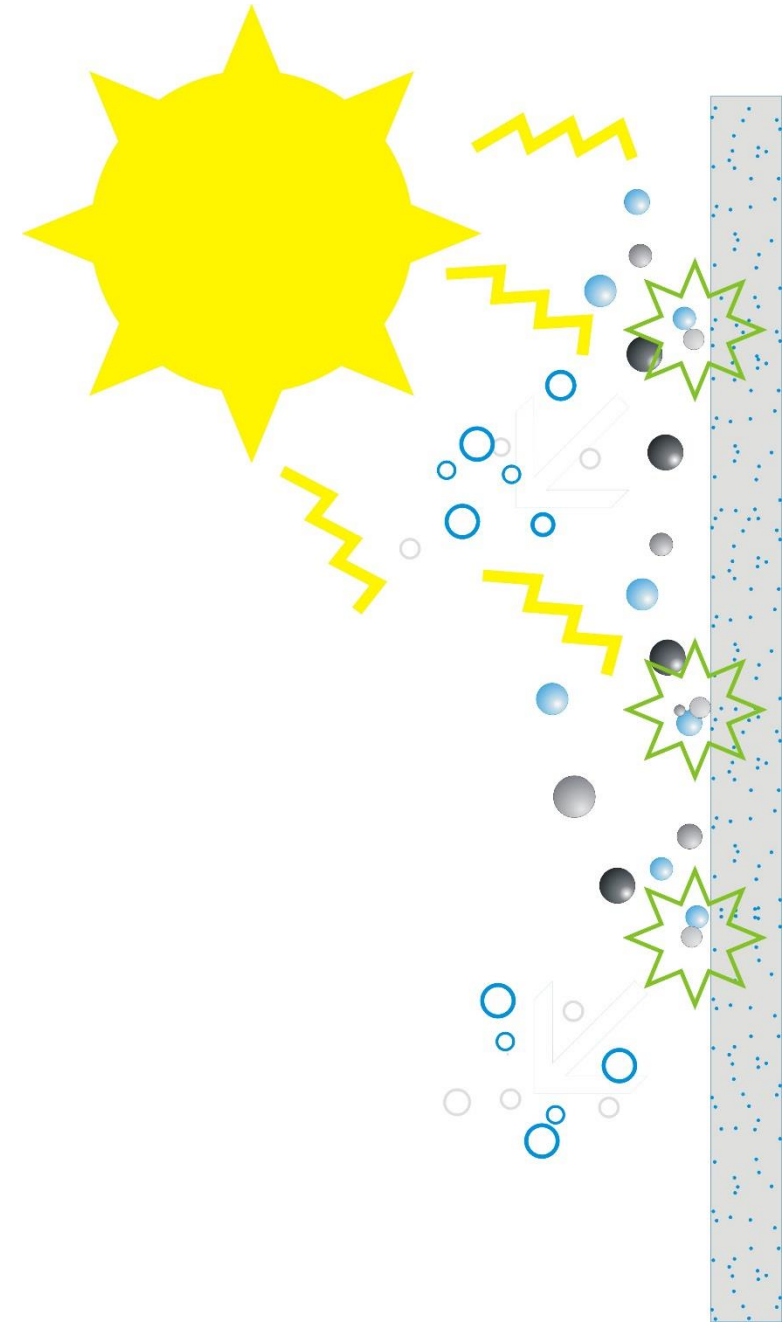
# What is Glass Fiber Reinforced Concrete

Material can be pigmented in a mass during the production process by adding of a pigment according to a customers request



# Special properties | $\text{TiO}_2$

A special kind of GFRC polycon with a photocatalytic cement technology for self-cleaning and pollution-reducing. Technology can reduce organic and inorganic pollutants that are present in the air around the facade.





# Production process | Hand Spray

Polycon products are produced by a method of a hand spray where a special spray gun is used to simultaneously deposit chopped glass fiber and cementitious slurry onto a mould.



# Processing

Cutting, Drilling, Milling ...





# Surfaces

**Smooth surfaces,**

Fine structures,

Patterns,

Graphic concrete,

Photo-Engraving



# Surfaces

Smooth surfaces,  
**Fine structures,**  
Patterns,  
Graphic concrete,  
Photo-Engraving



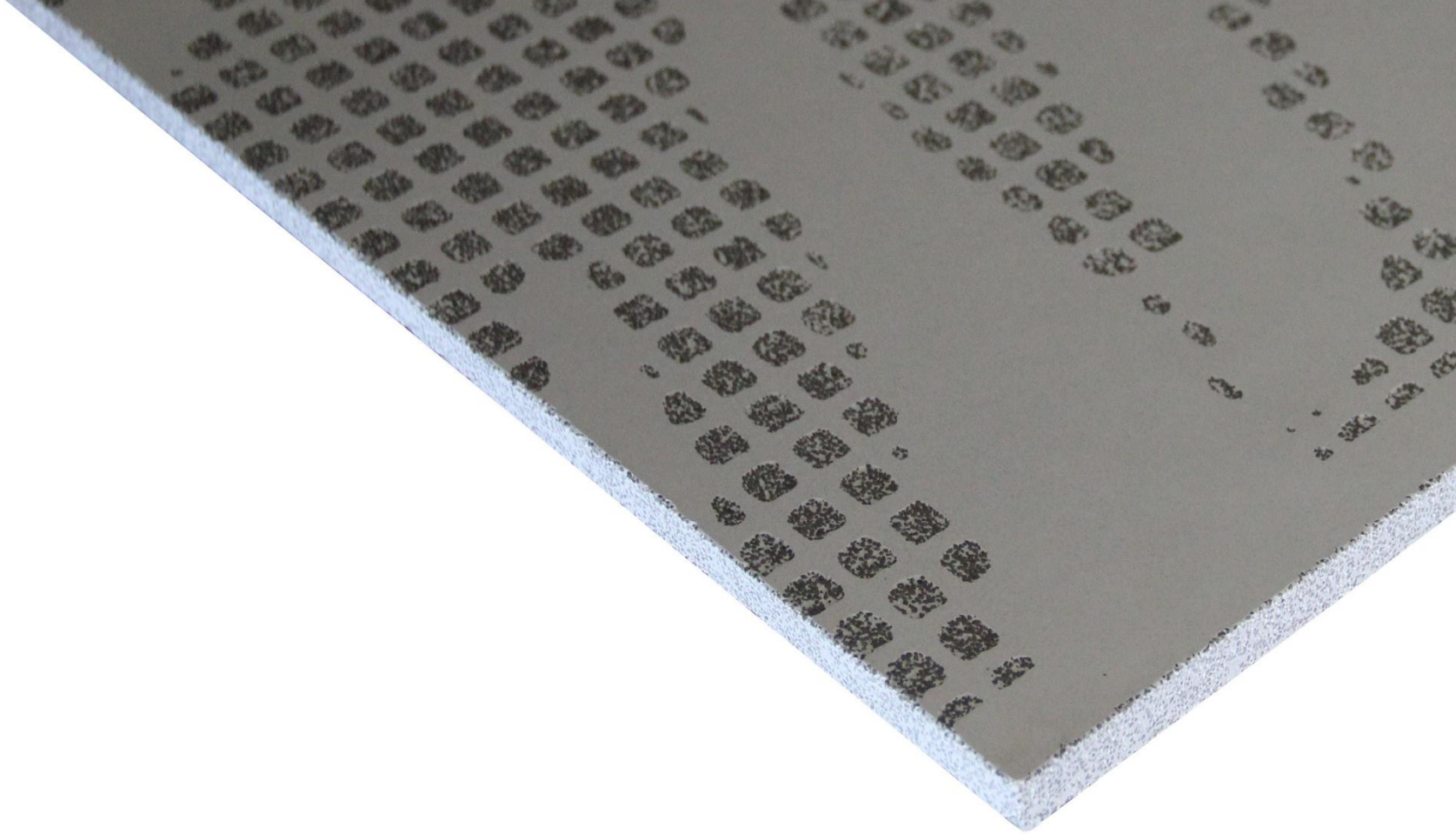
# Surfaces

Smooth surfaces,  
Fine structures,  
**Patterns,**  
Graphic concrete,  
Photo-Engraving



# Surfaces

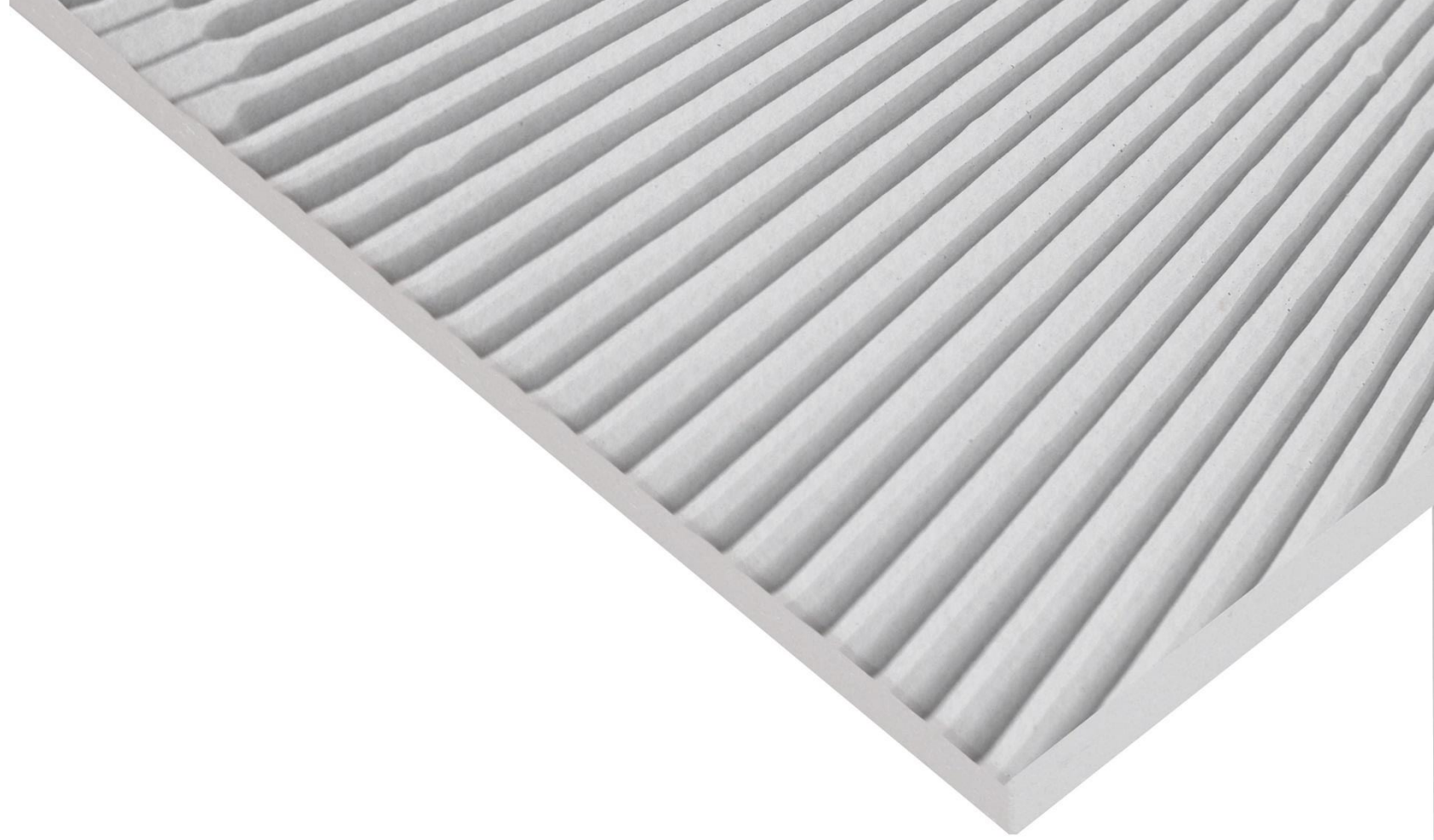
Smooth surfaces,  
Fine structures,  
Patterns,  
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Photo-Engraving





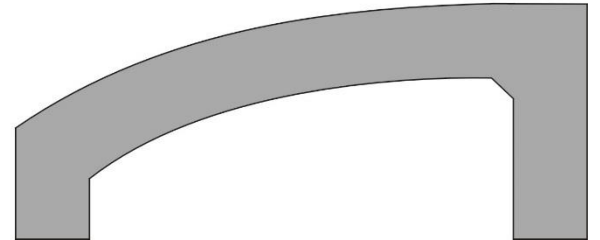
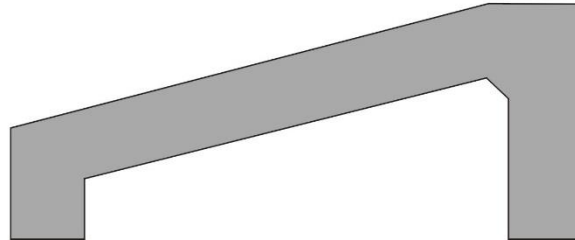
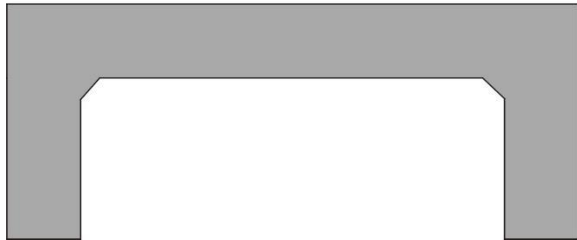
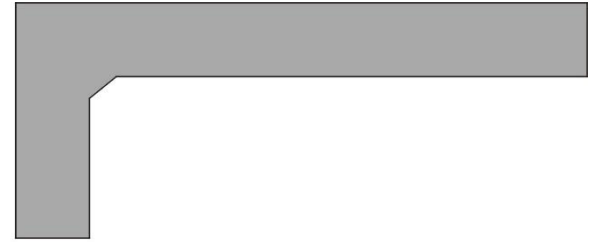
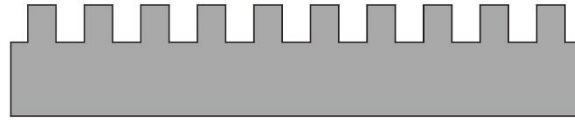
# Surfaces

Smooth surfaces,  
Fine structures,  
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**Photo-Engraving**



# Dimensions and shapes

Products are manufactured in a different shapes and thicknesses according to a customer requests ...



# Dimensions and shapes / Flat panels

Products are manufactured in different **thicknesses** depending on the size and complexity of the individual elements and according to a customer requests,

**The most common thicknesses:**

12mm; 13mm; 15mm; 16mm; 19mm ...



# Dimensions and shapes / Flat panels



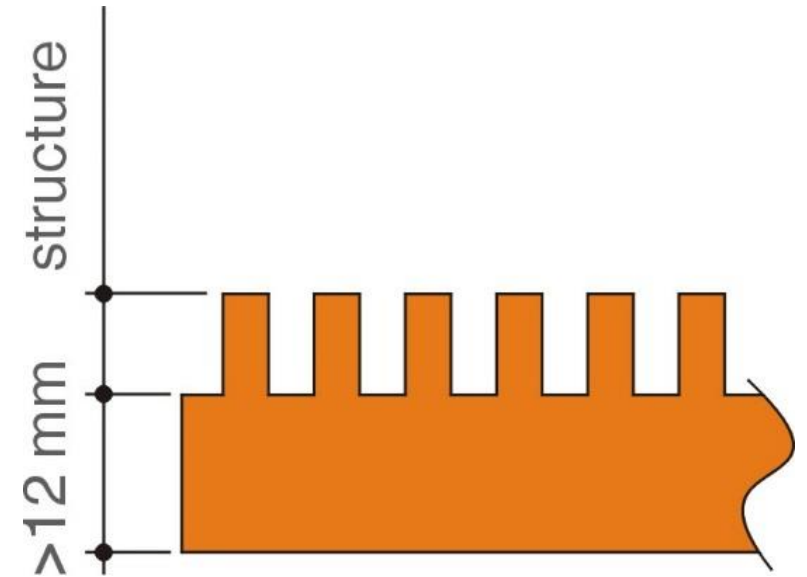


# Dimensions and shapes / Structured panels

Products are manufactured in different **structures** and thicknesses depending on the size and complexity of the individual elements and according to a customer requests,

**The most common thicknesses:**

12mm; 13mm; 15mm ... + **structure**

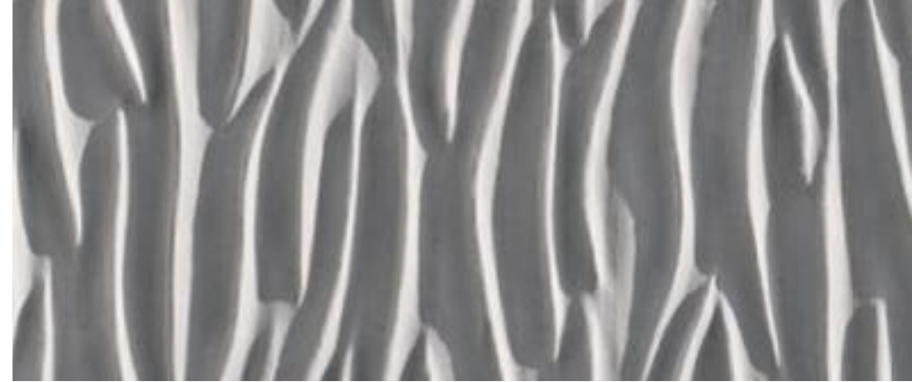
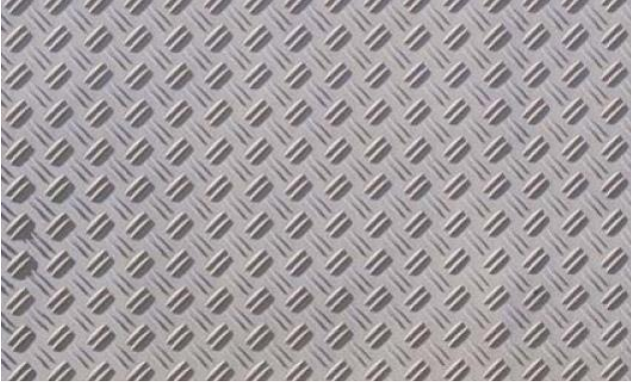


# Dimensions and shapes / Structured panels





# Dimensions and shapes / Structured panels



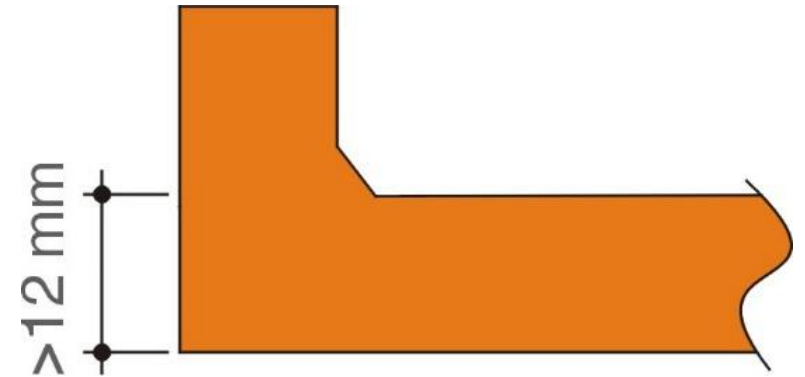
... more then 200 structures

# Dimensions and shapes / 3D elements

Products are manufactured in different **shapes** and thicknesses depending on the size and complexity of the individual elements and according to a customer requests,

**The most common thicknesses:**

**3D elements:** 12mm; 13mm; 15mm ...

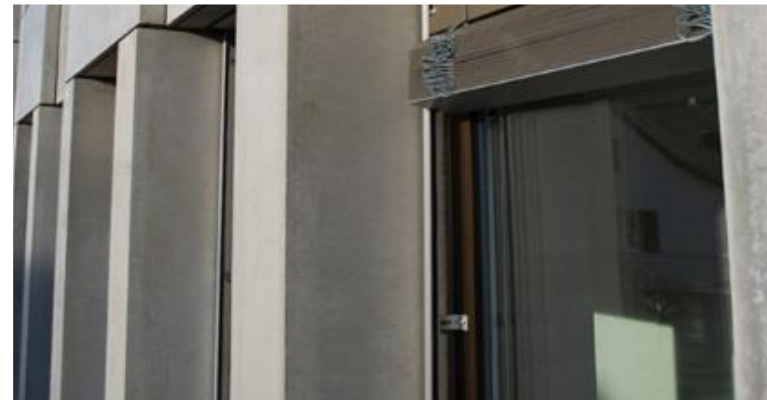




# Dimensions and shapes / 3D elements

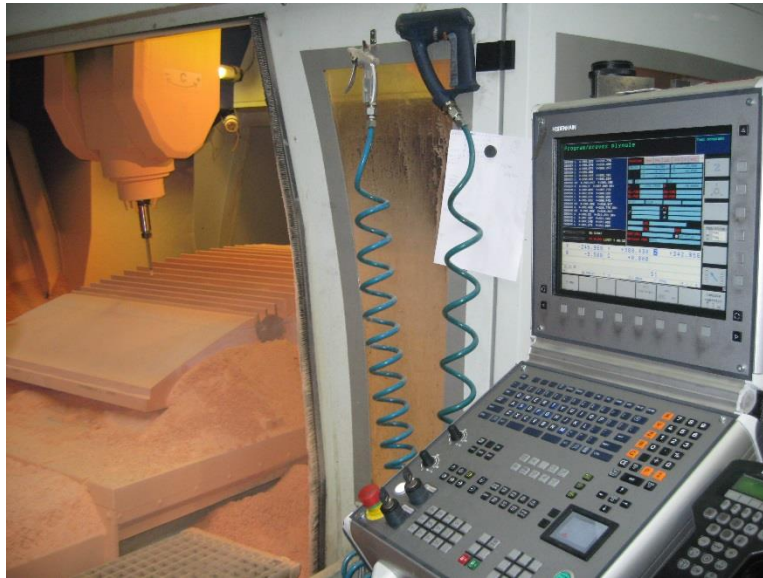
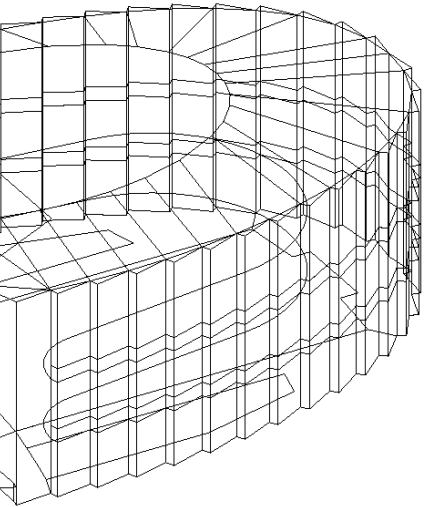


# Dimensions and shapes / 3D elements



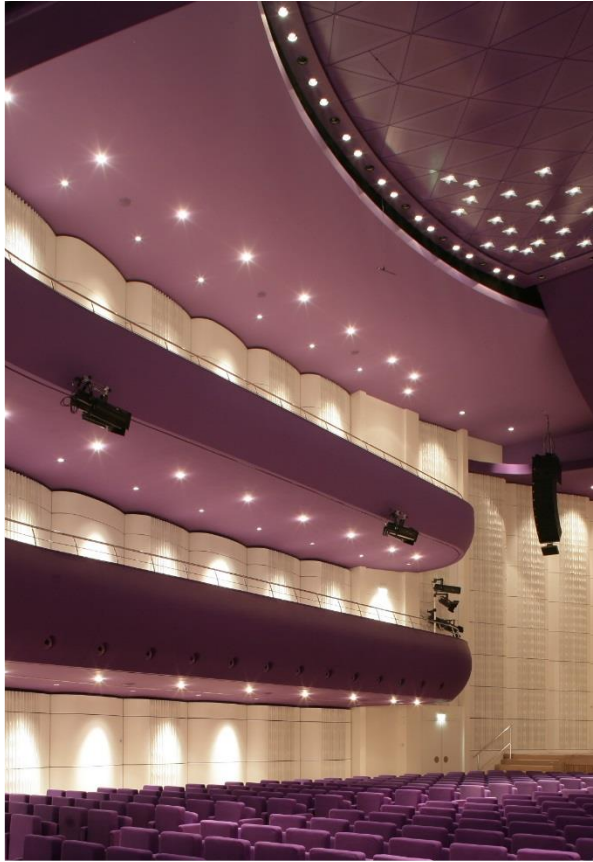
# Dimensions and shapes / 3D special

Special 3D elements are designed and created for an individual project and specific use according to a customer needs ...





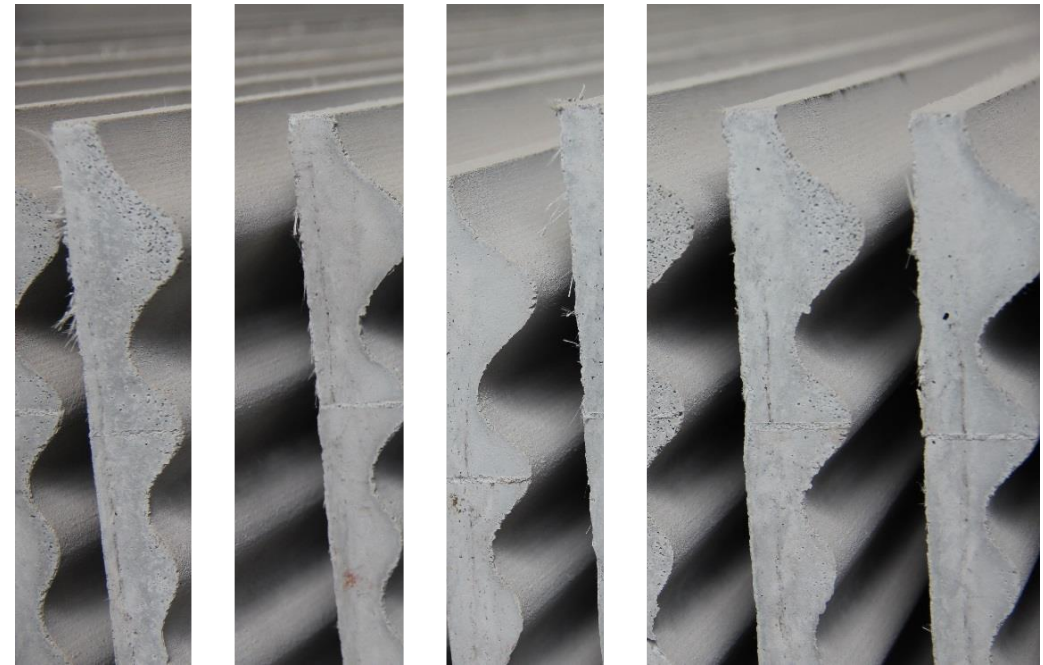
# Dimensions and shapes / 3D special





# Dimensions and shapes

... all panels and elements are produced exactly according to the project, thus there no arises waste, which is **positively reflected in the overall cost of the project!**



# Use of polycon products

Facades,  
Interior wall Cladding,  
Acoustic panels,  
Design and furniture,  
Others ...



# Use of polycon products

## **Facades,**

Interior wall Cladding,

Acoustic panels,

Design and furniture,

Others ...



# Use of polycon products

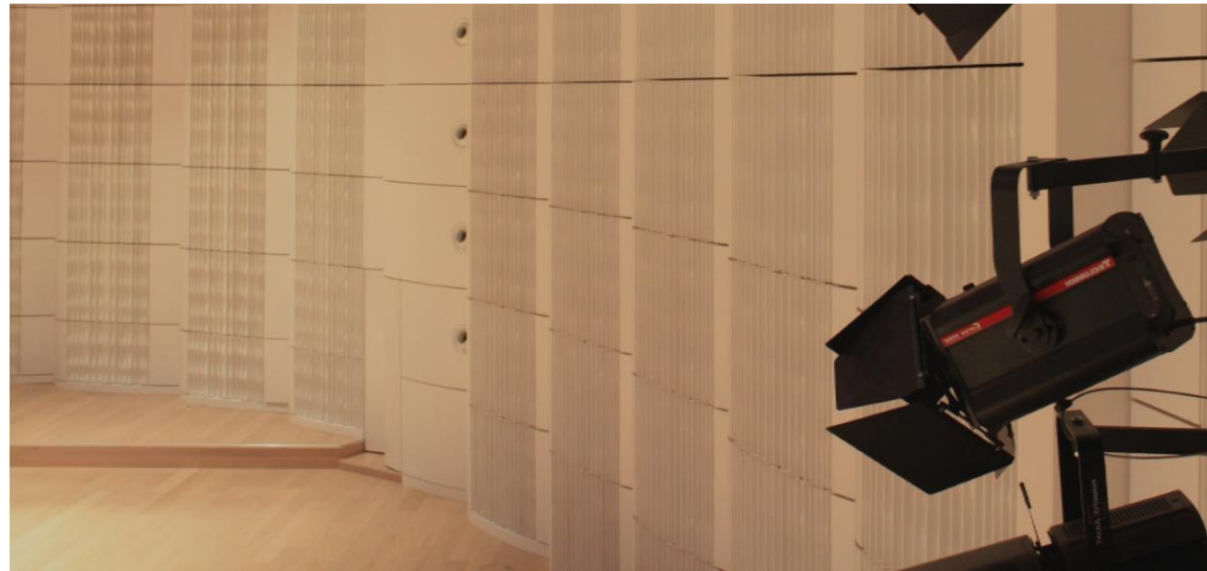
Facades,  
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# Use of polycon products

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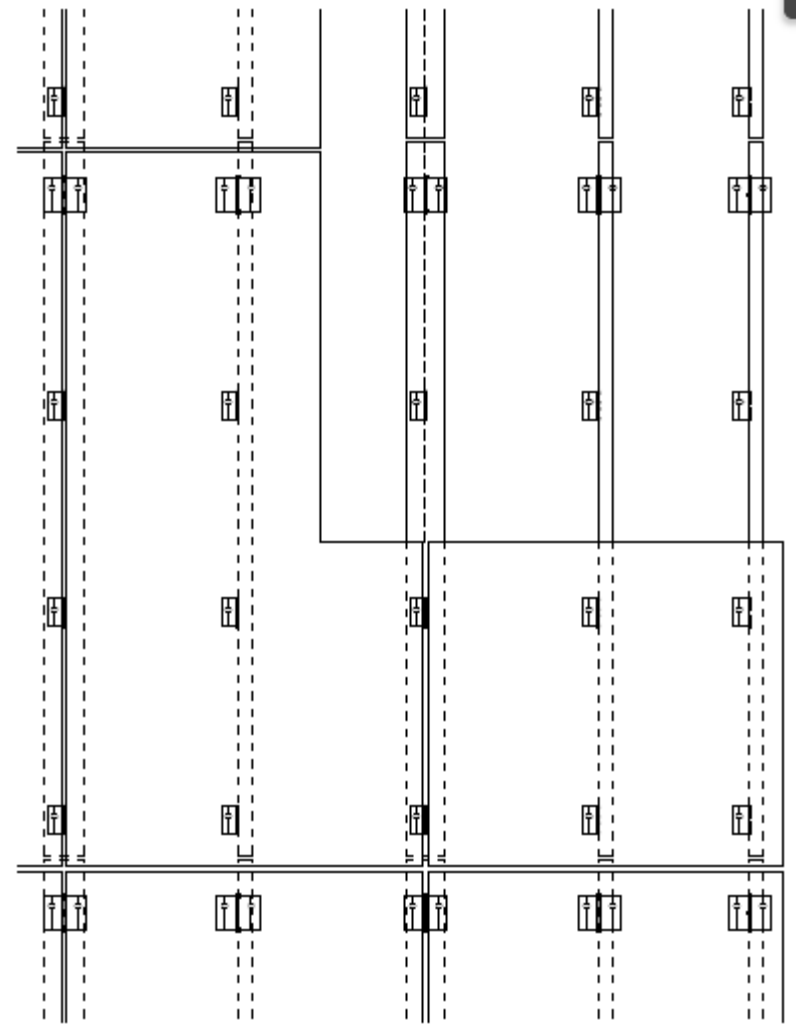
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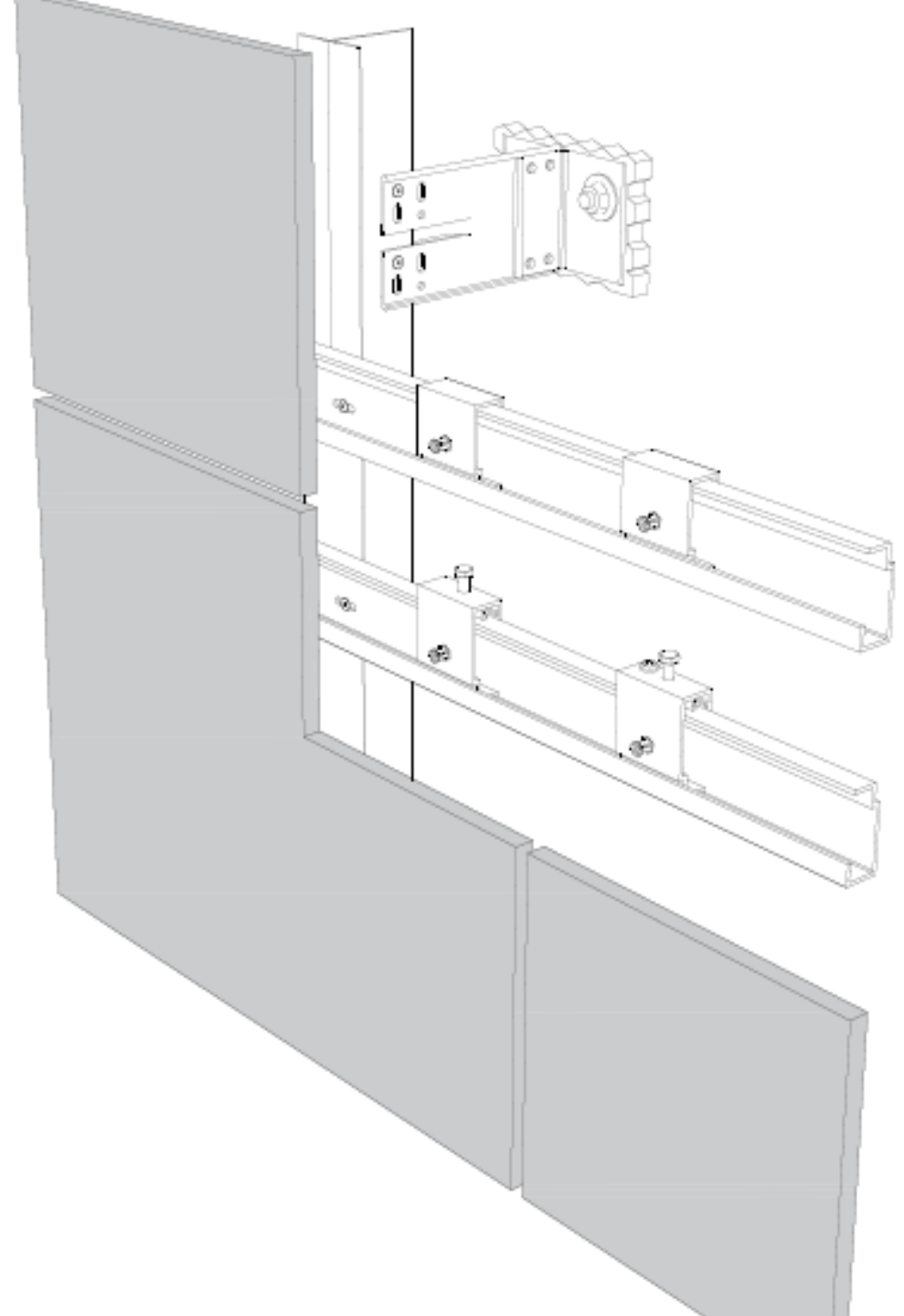
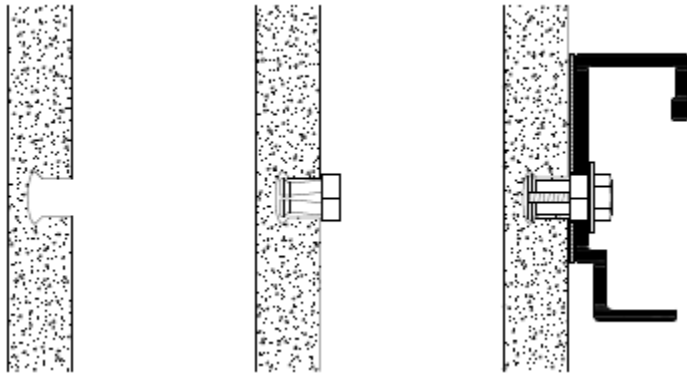
# Type of fixing

Undercut anchors,  
Bonding,  
Rivets and Screws,  
Others ...



# Type of fixing

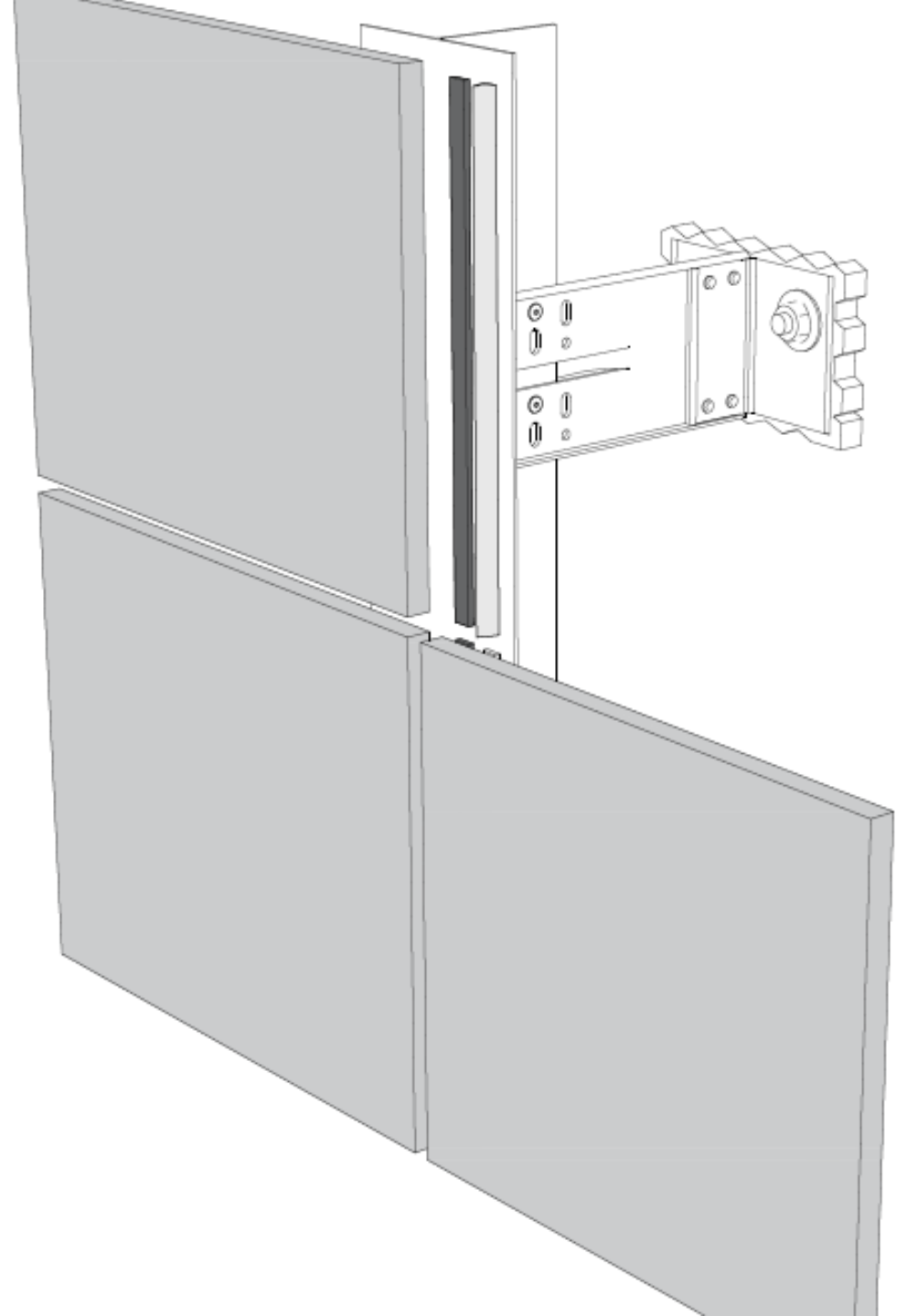
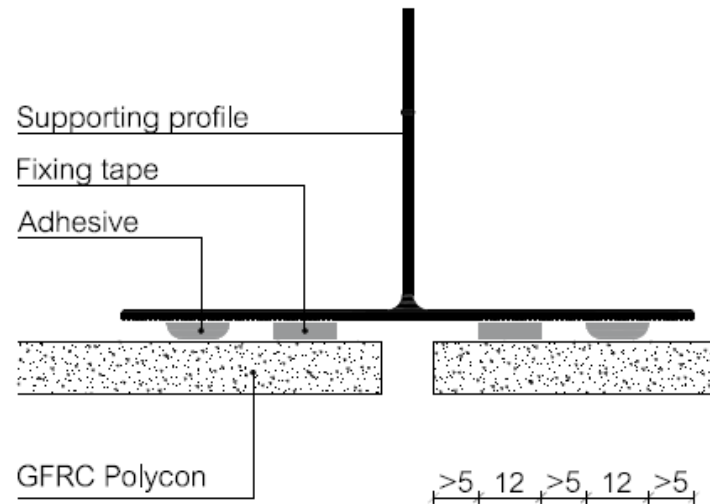
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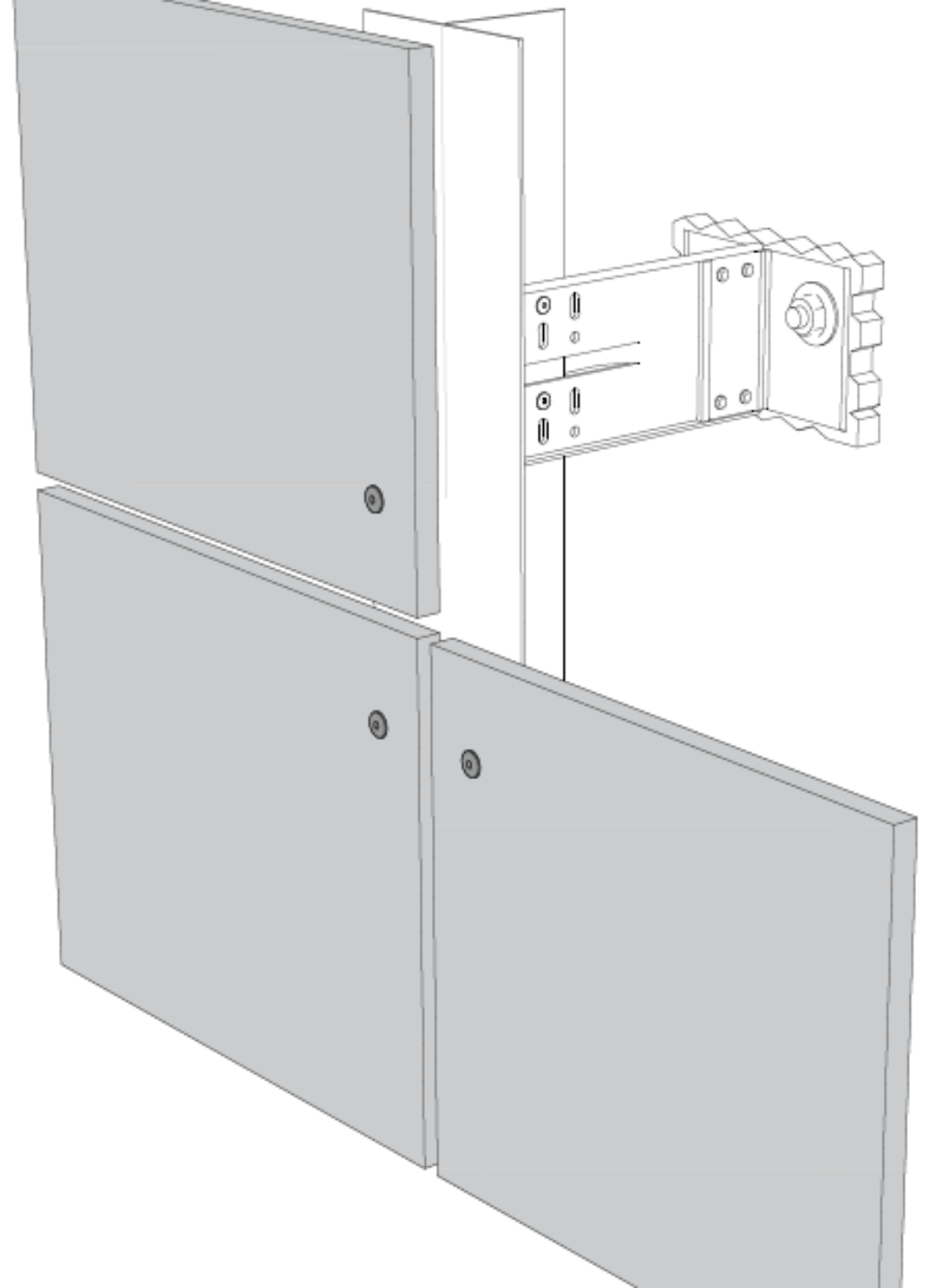
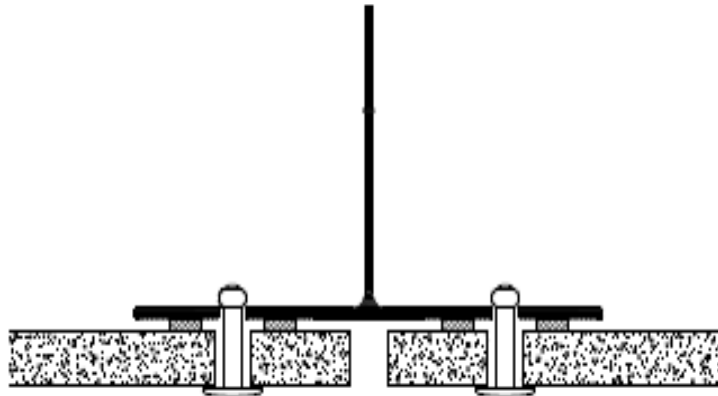
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# Type of fixing

Undercut anchors,  
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Others ...



# Type of fixing

Undercut anchors,  
Bonding,  
Rivets and Screws,  
**Anchors, Socket Anchors ...**



# References

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Netherlands, Maarsen



Netherlands, Venlo

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Netherlands, Venlo

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Arcidiecézní Muzeum, Olomouc

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Switzerland, Amriswil

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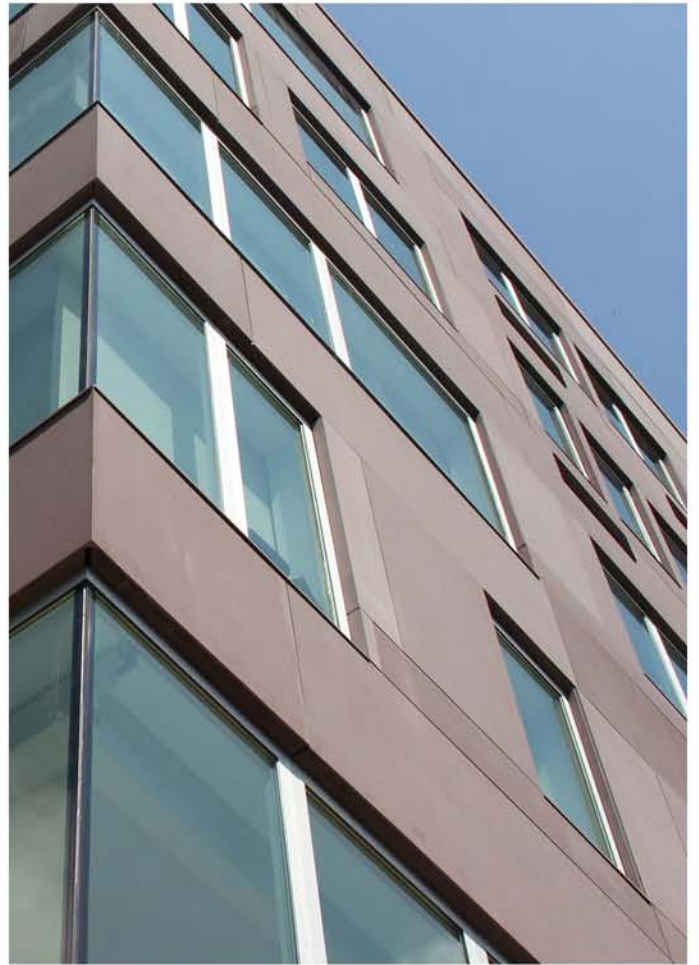


Czech Republic, Olomouc

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New York - Manhattan, USA

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Belgium, Antwerp

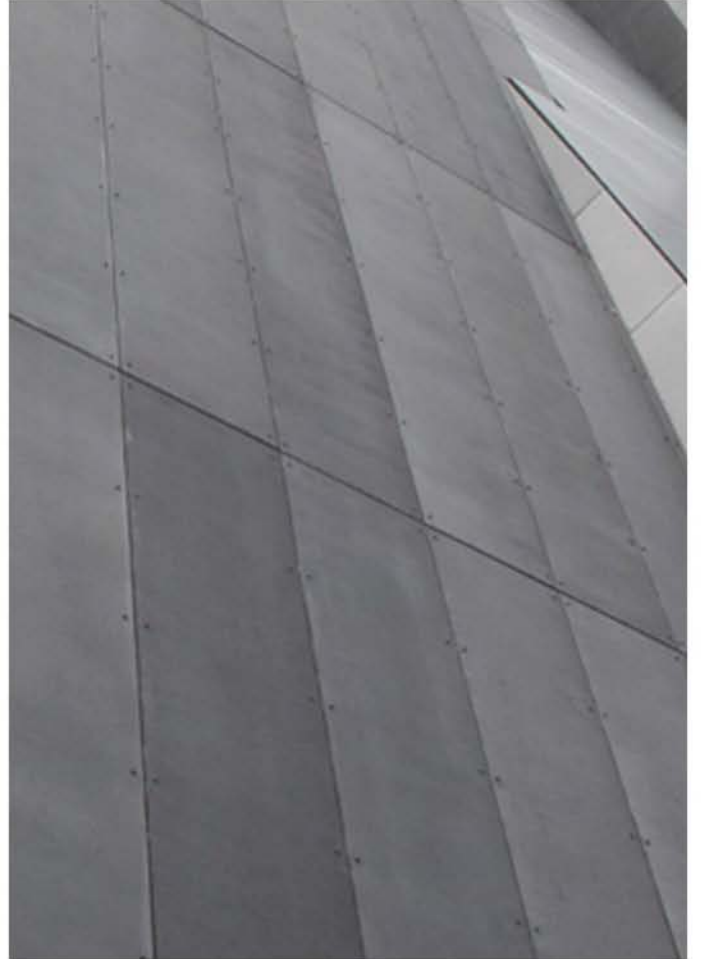
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Netherlands, Haarlem

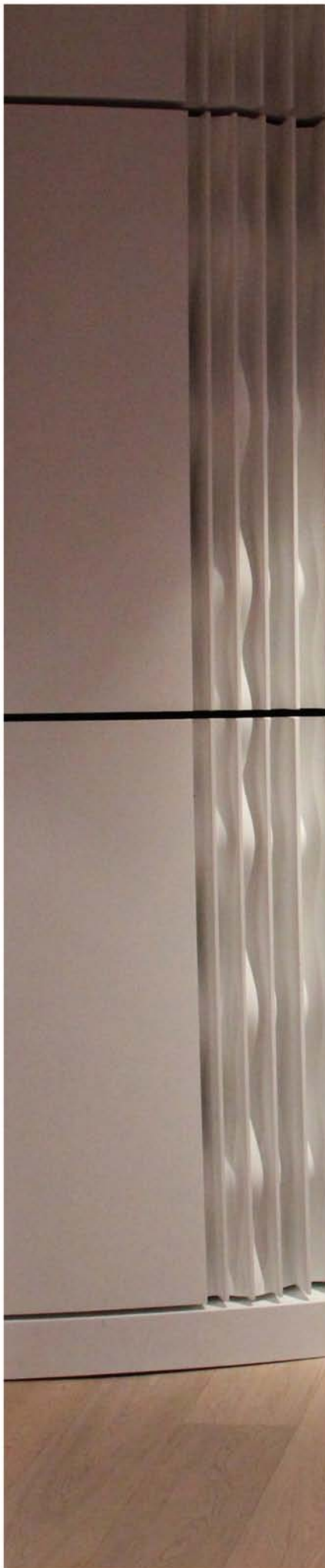
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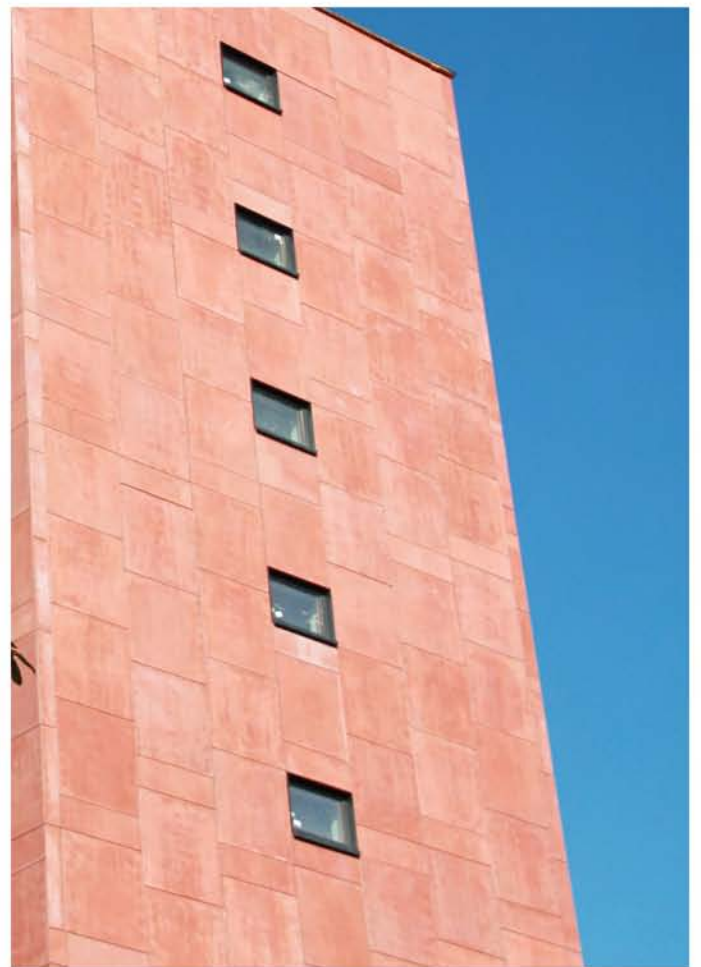
Czech Republic, Prague

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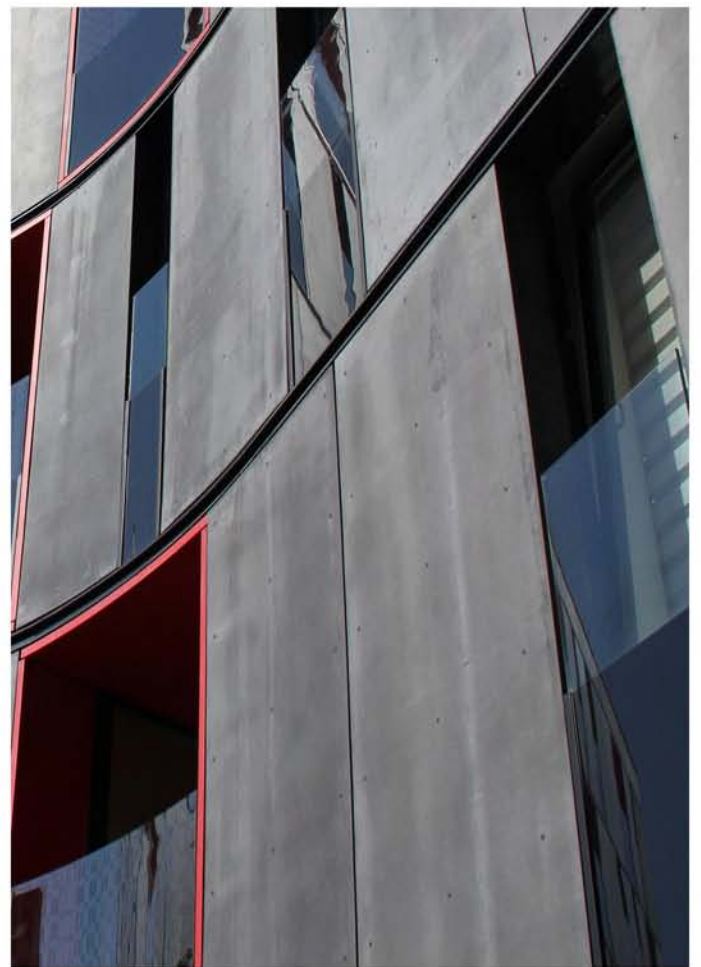
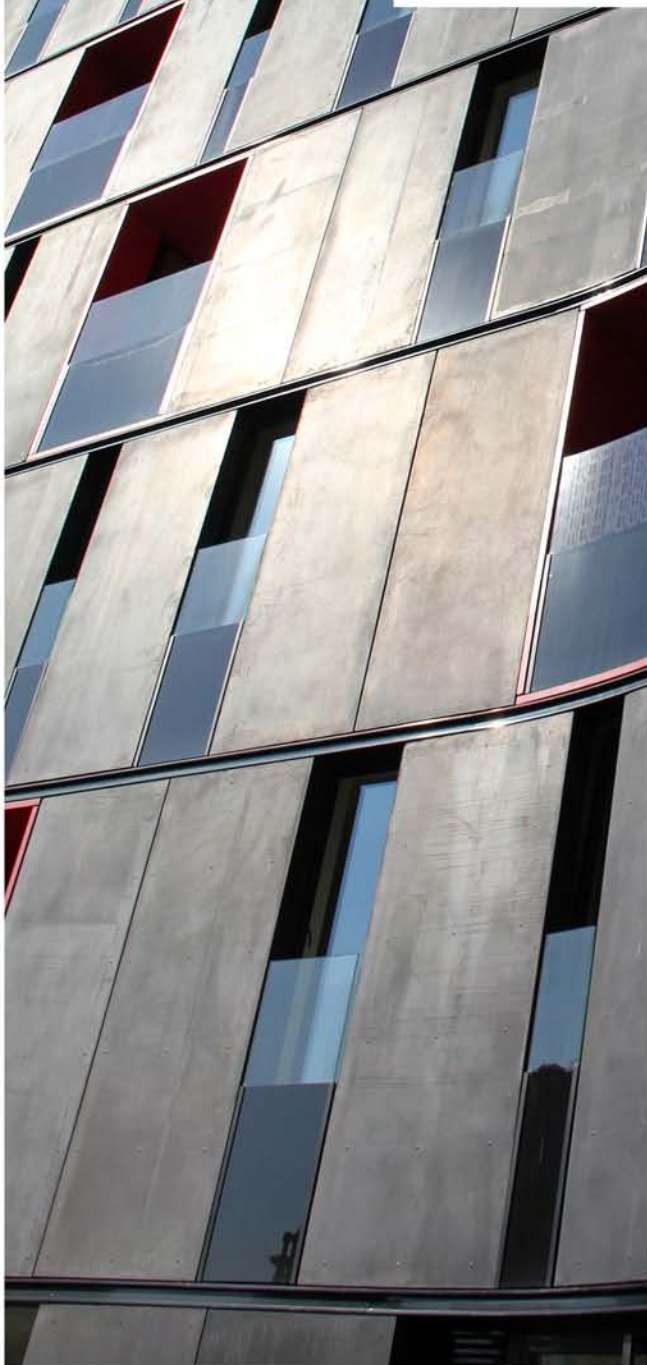
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Belgium, Leuven

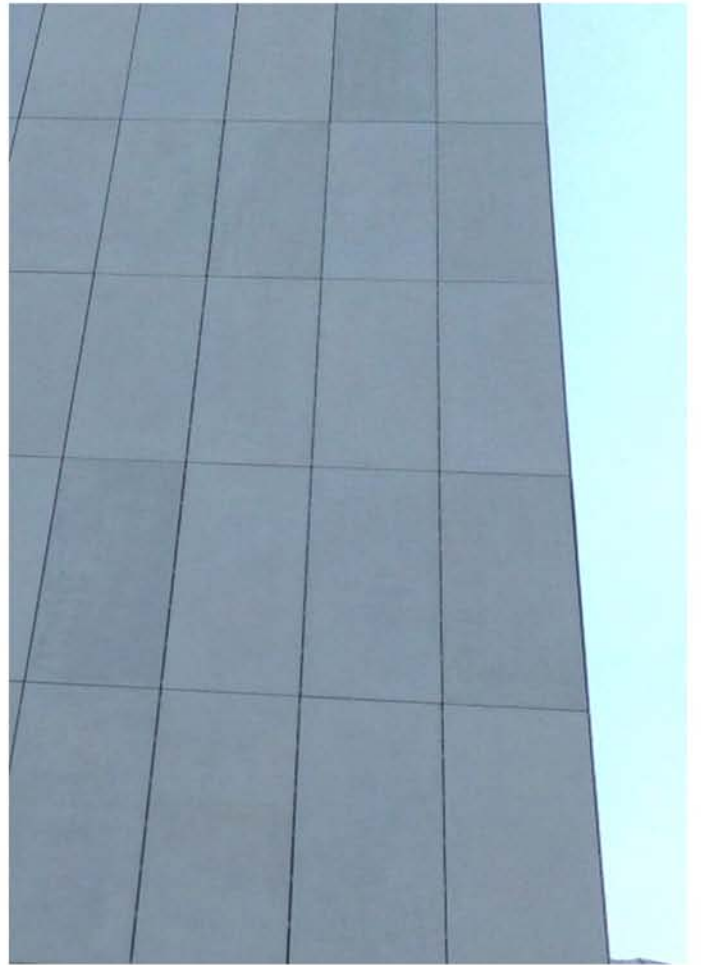




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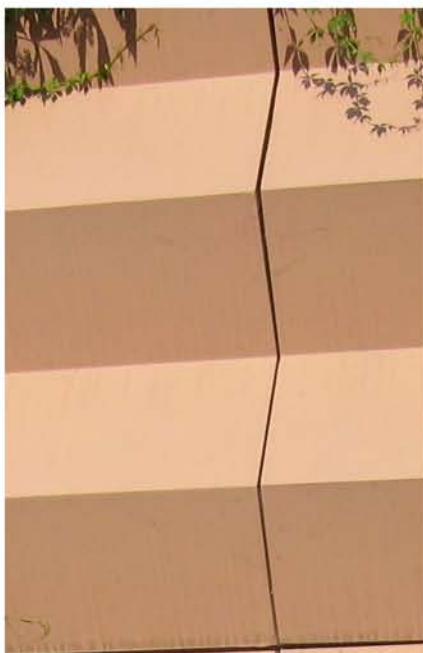
Czech Republic, Jihlava

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Netherlands, Amsterdam





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