

Manufacturer of glass reinforced concrete products









SKONTO BUVE SKONTO PLAN SKUNTU CROSS TIMBER SYSTEMS L<mark>at</mark>vijas Energoceltnieks

Skonto Group

EUR





Skonto Concrete Cladding is part of the Skonto Group – a group of Latvia based export oriented construction companies with a global turnover of 300M EUR of which the UK market represents 50M





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Glass Reinforced Concrete



First buildings in 70s



Lightweight, durable & customizable

Non-combustable



Long service life

Easy on-site handling





Value engineering

- Efficient alternative for precast concrete
- Economic option for natural and cast stone
- Cost effective substitute for terracotta tiles







Natural stone

Precast concrete

Terracota tiles





Design & production of GRC panels and backing systems



Key Features:

- GRCA Grade 18 direct spray
- 12mm thickness (27kg/m2)
- BIM ready 3D in house design
- Single mould size up to 2x4m
- 5-sided panels
- Custom backing systems in stainless steel/ aluminium/galvanized steel, adjustable in all axes
- Non-combustible EN 13501 A.1

Lightweight, durable & customisable = architectural freedom







Factory at a glance

- 3700 m² production space
- 300 m² office space
 - In-house laboratory
- 25-50 production staff





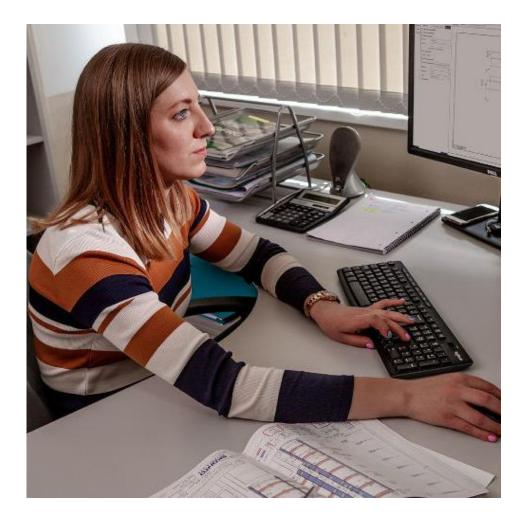
Manufacturing capacity

25,000 m² annual production capacity





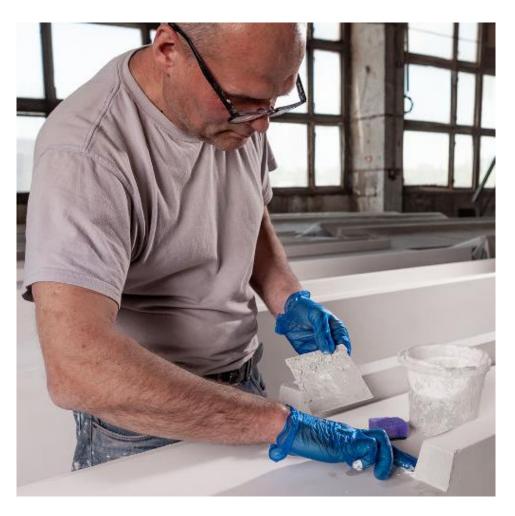
GRC Production process



engineering



installing fixing system



finishing



pre-mix preparation



spraying



testing



packaging

All the way through - From CAD to Site









Technical Specification



Spray-up glass fibre reinforced concrete, manufactured to GRCA Grade 18P. Formed from a Portland cement (EN 197-1), silica sand (maximum grain size 1,2 mm) mix with acrylic polymers, superplasticizers, alkali resistant glass fibre and inorganic colouring pigments

Limit of Proportionality (LOP) N/mm ²	8
Modulus of Rupture (MOR) N/mm ²	21
Shear strengths; In Plane Shear (N/mm ²)	10
Total ultimate shrinkage	<0.2%
Impact test (CWCT note 75)	Class 1
Surface water absorption at wet weather conditions (%)	8

Full Specification available as separate PDF









ISO Certified production



OHSAS 18001 BUREAU VERITAS Certification





Non-combustible class A1 to EN 13501

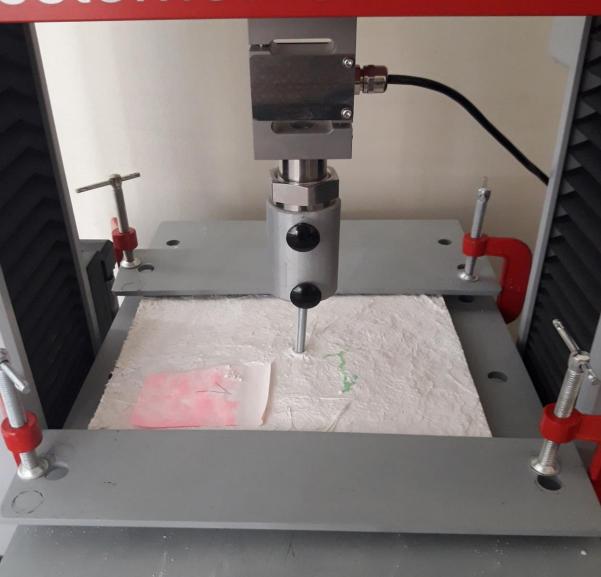
Committed & certified to delivering the best





Internal testing







Bending test BS EN1170-5:1998 Fixing pull out and shear tests



Plasticity of the mortar. "Slump test" method BS EN1170-1:1998



Fiber content in fresh GRC. "Wash-out test" BS EN1170-2:1998



Fiber content of sprayed GRC. "Bag and bucket test" BS EN1170-3:1998



Absorption of water by immersion and dry density. BS EN1170-6:1998

Continuous testing for consistant quality





External testing



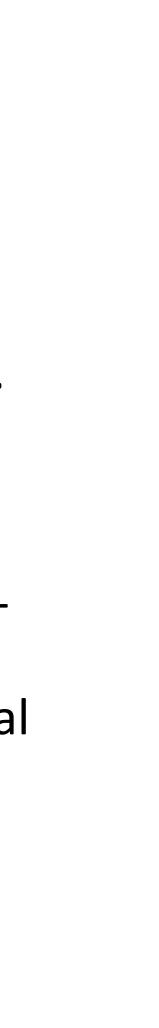
Non-combustible class A1 to EN 13501. Testing performed in Fire Research Centre of Fire and Rescue Department under the Ministry of the Interior of Lithuania



Impact test in accordance with CWCT N76. Performed in VINCI Technology Centre UK

Weathering test according to EN ISO 4892-3 for 1 year and 5 years. Performed in Polymer Material Institute of Riga Technical University in Latvia

Continuous testing for consistant quality





Finishes

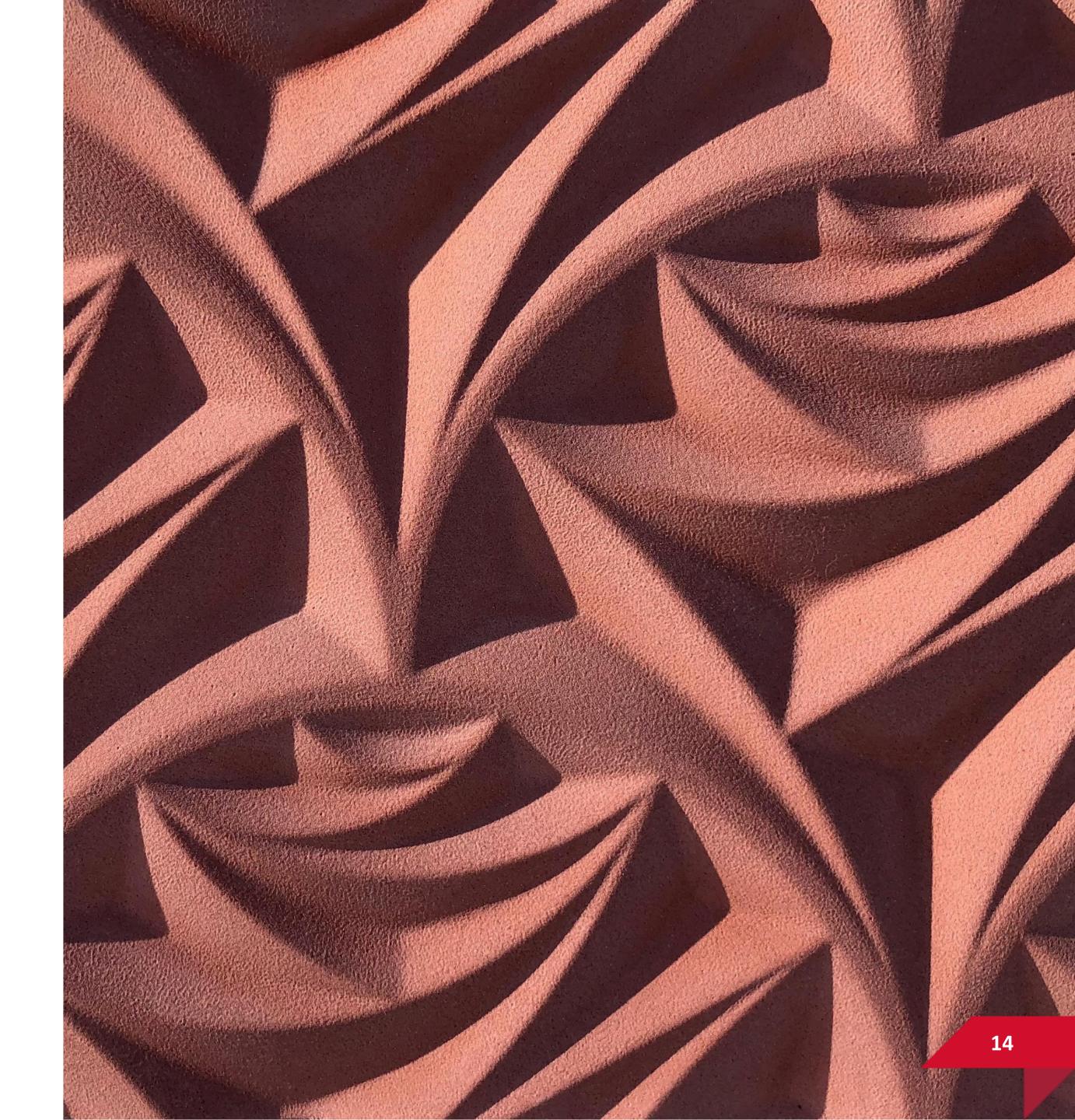
Smooth or textured surface



- Wide choice of colours
 - Through coloured
 - Inorganic pigments
- Products are weatherproof and lightfast



- Decorative aggregates
 - Visible stones
 - Enhanced colors





Rough surface

- Wide choice of colours
- Through coloured
- **C** Decorative aggregate options
- Panel thickness 12mm + texture



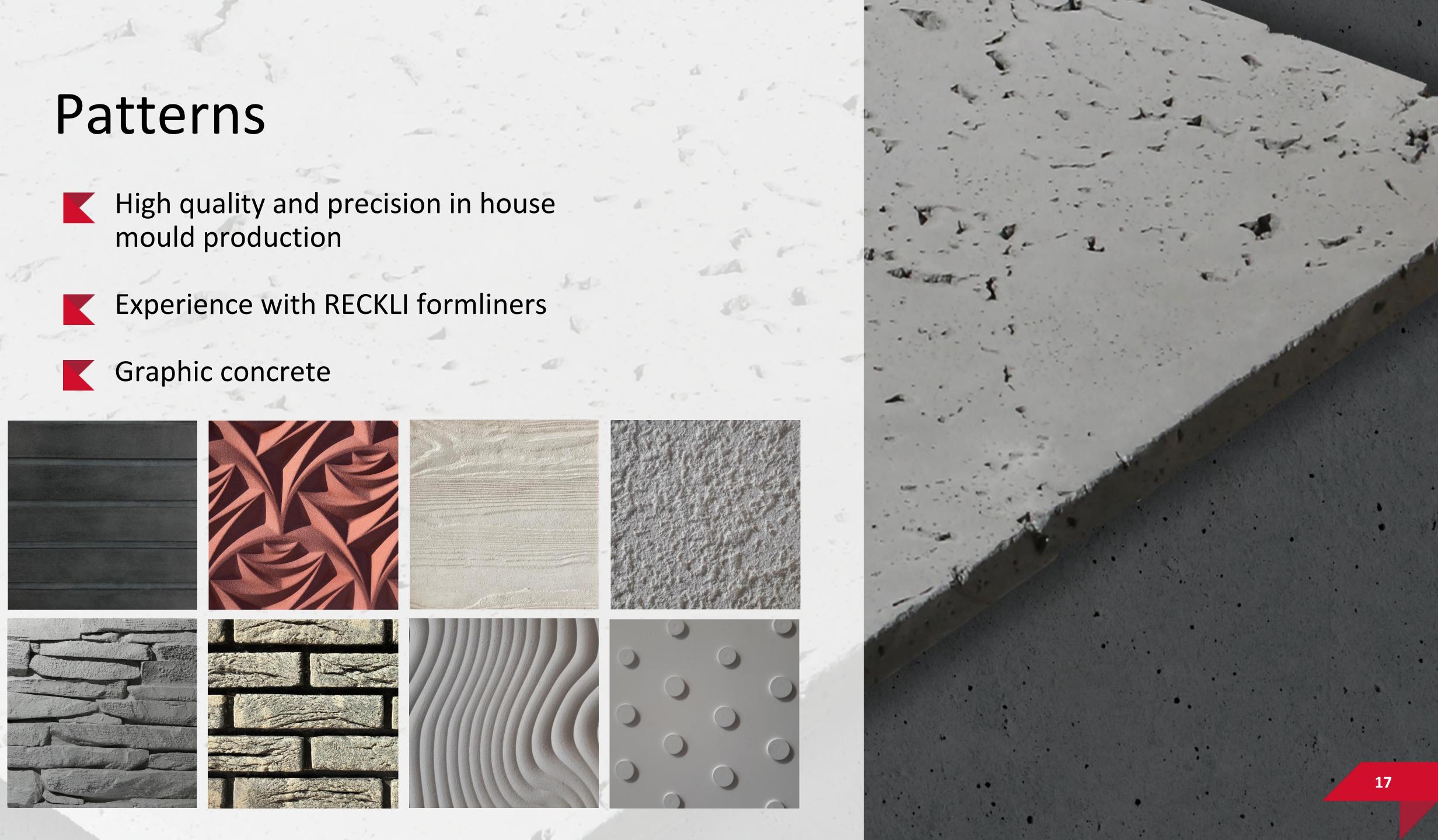


Smooth surface

- Wide choice of colours
- Through coloured
- Weatherproof





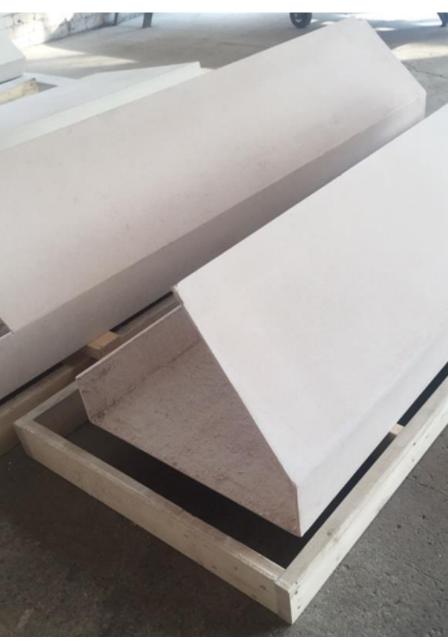




Complex shapes









Built-in support frame for mounting & superior durability





Additives

Can slightly affect panel colour – can be avoided by adjusting necessary surface colour in advance



- embedded or surface applied
- re-applied every 10 years



- water repellent
- re-applied every 7 years

Panel without anti graffiti coating



Panel with anti graffiti coating



Hydrophobic coating



Durable & Practical







Brick faced GRC

- Lightweight solution to achieve brick faced finish 50-120kg/m2
- Thin brick faced wall cladding 40-60mm
- Fast installation with panel sizes limited only by transportation
- Mechanically fixed brick-slips durable, safe and non-combustible





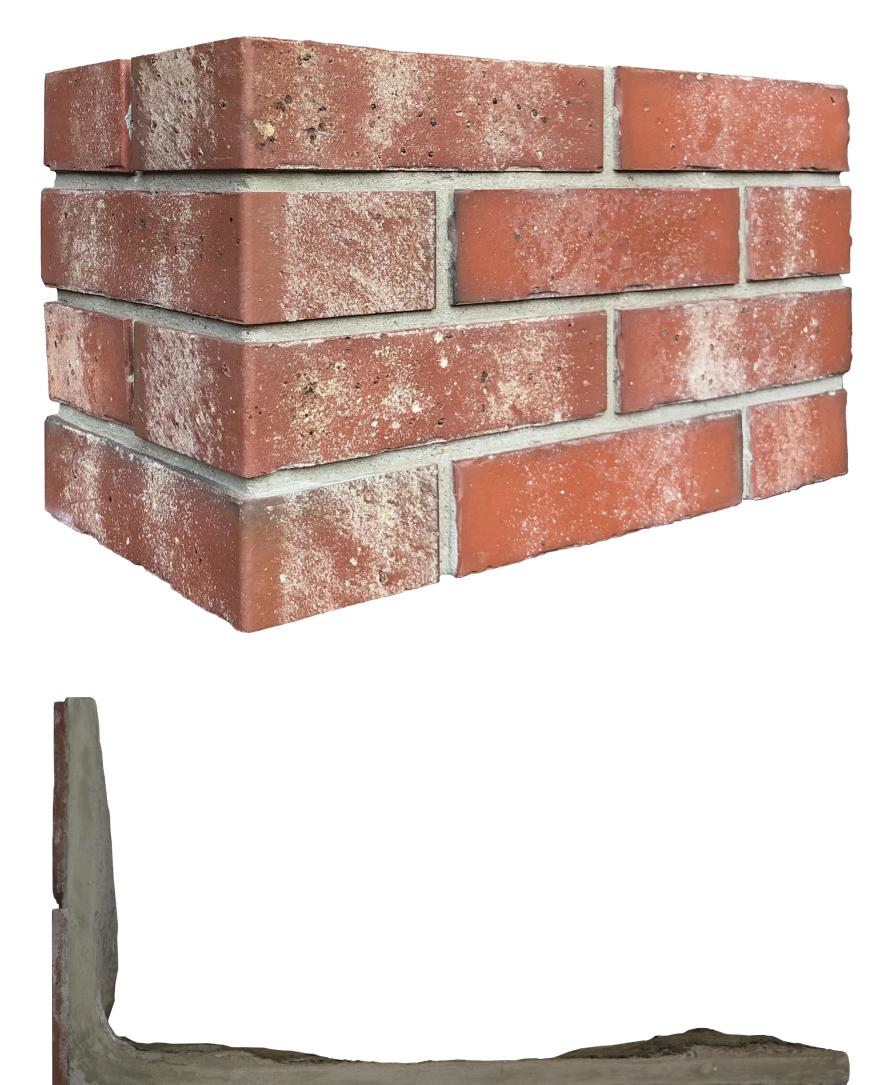
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Brick-slip faced GRC





- Each brick slip is mechanically bonded with GRC backing using multiple stainless steel anchors
- Manually pointed mortar joints in any colour and texture
- Panel dimensions limited only by transportation





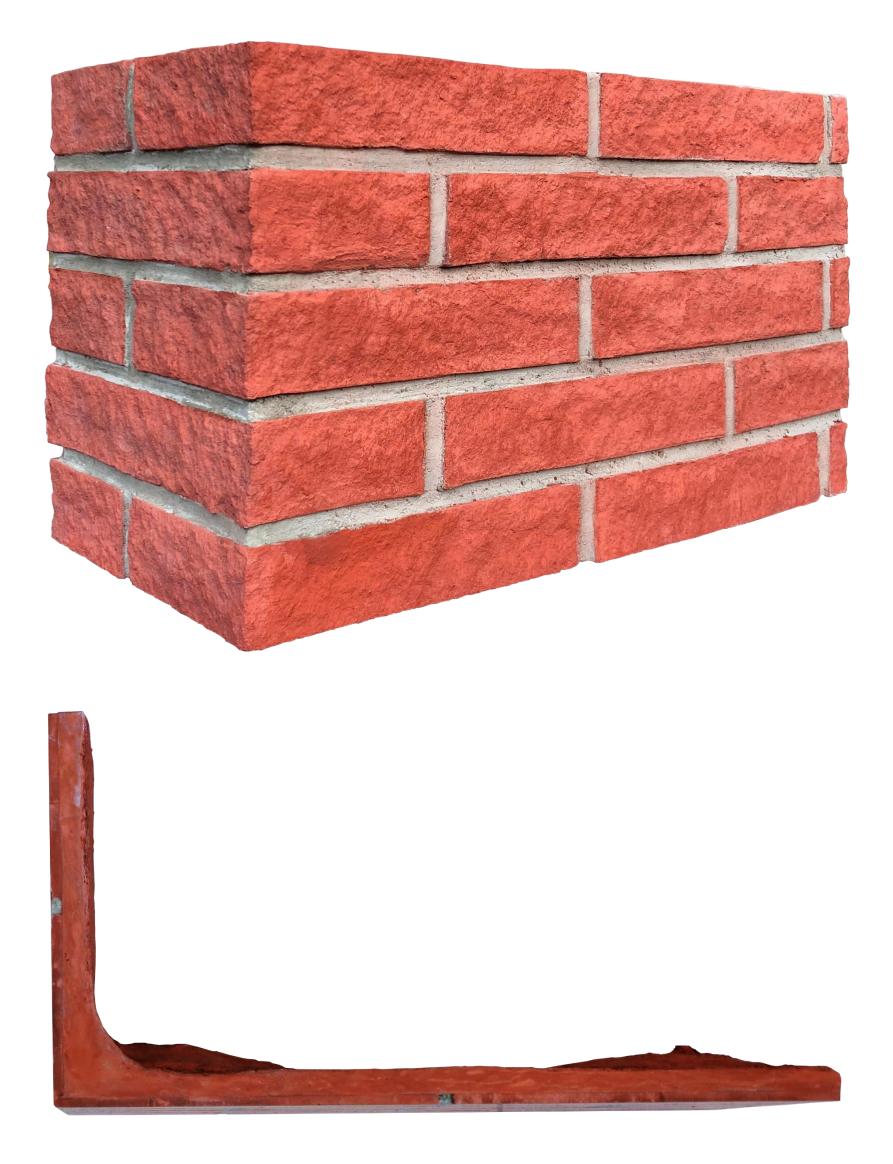
Brick textured GRC

- Grade 18P direct sprayed GRC with brick texture and manually pointed dummy joints
- Panels are through coloured to ensure consistency of colour even if chipped



Panel dimensions limited only by transportation

Non-combustible EN 13501 A.1





Perfect for unitized facade systems

Light weight solution that permits unitization of precast and brick faced facades



Non-combustible EN13501 A.1



- Can be integrated with unitized facade system frame
- Large panel sizes minimise work on site and in facade contractors factory
- Any bricks can be used and any pointing style can be matched







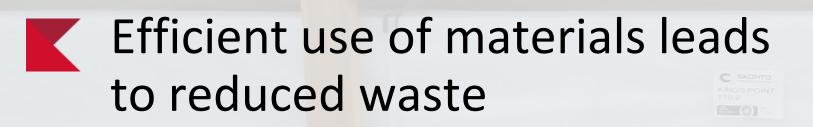
Packaging



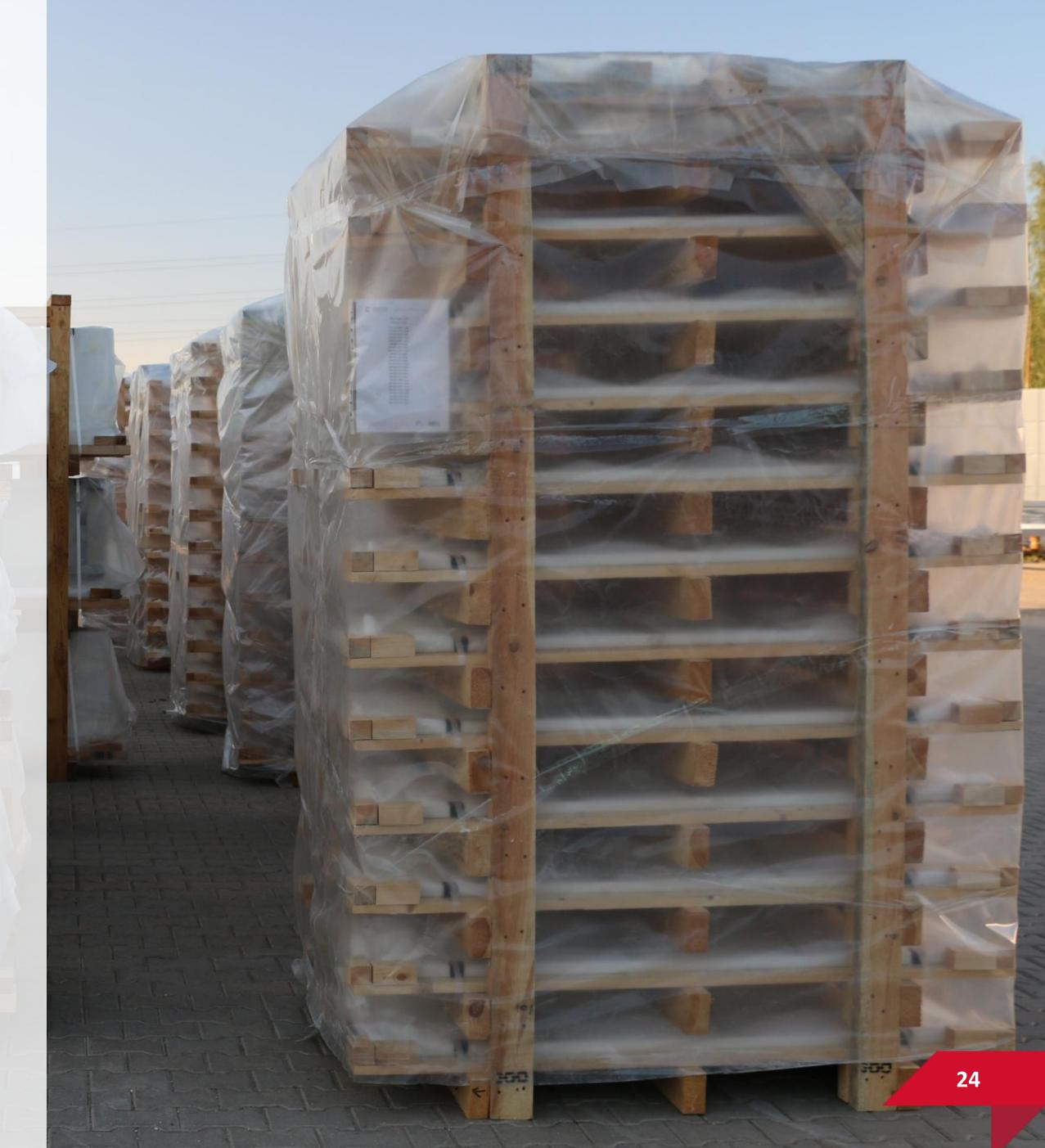
Packaging is constructed exclusively from FSC timber



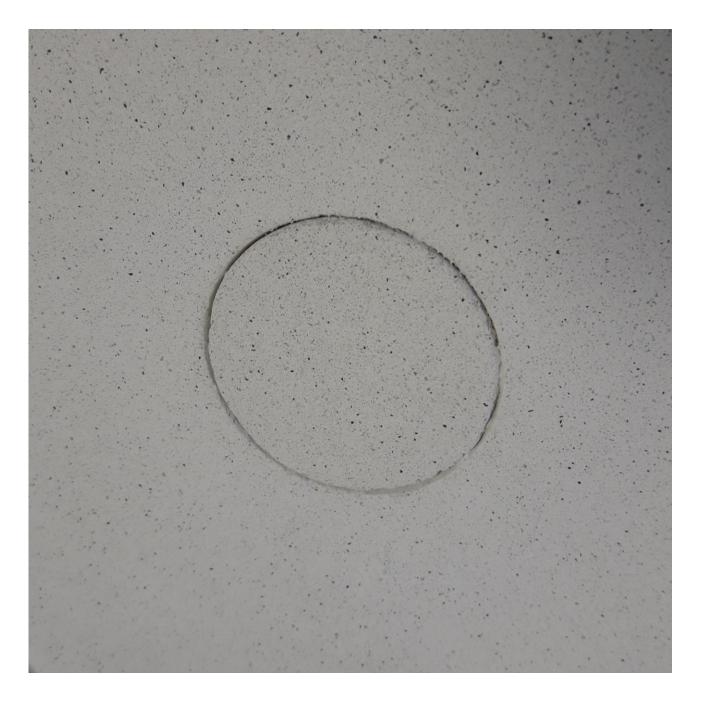
Strict packaging design safety guidelines



Efficient use of space leads to lower pollution and costs









Technical options

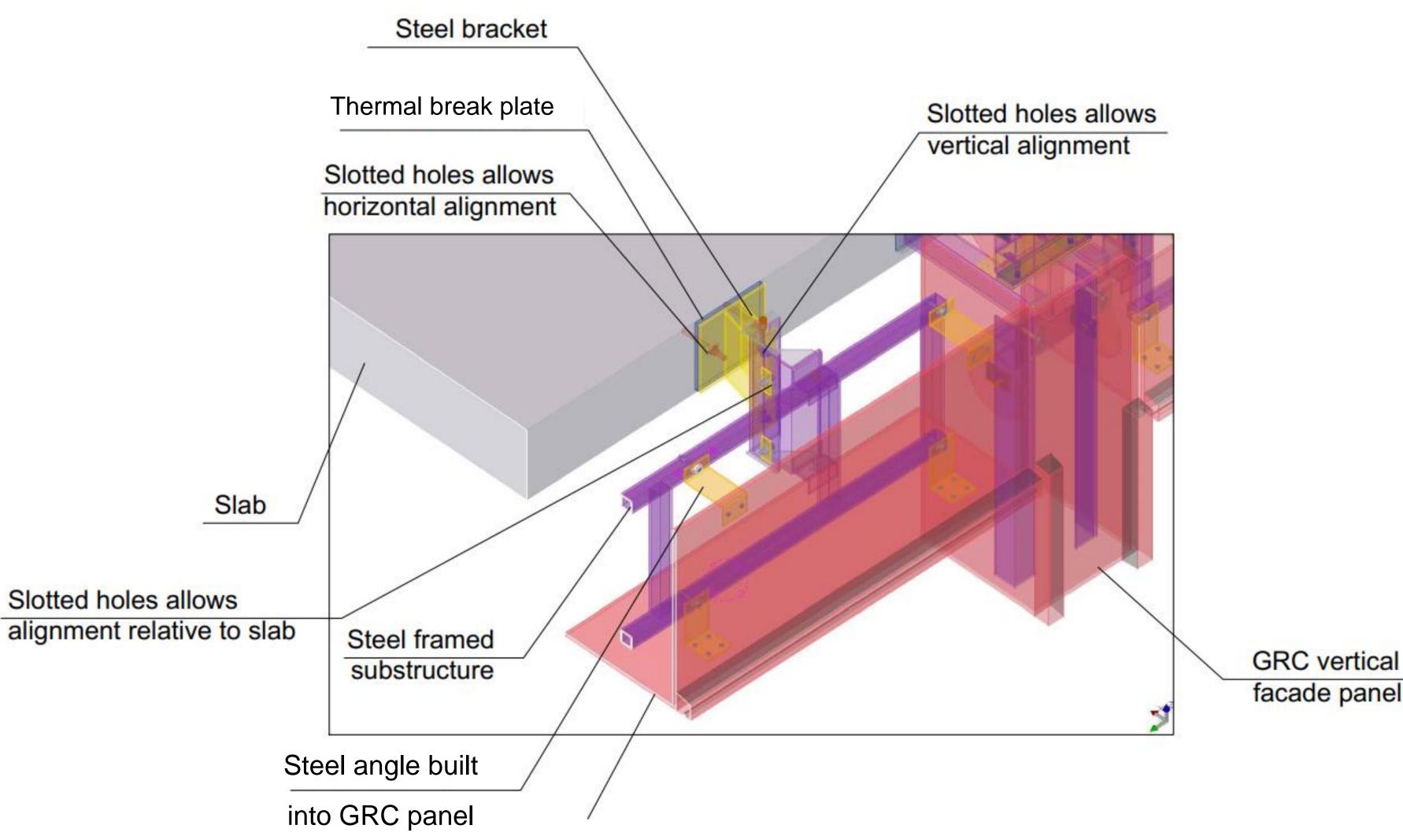


Cast or post-drilled

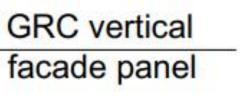






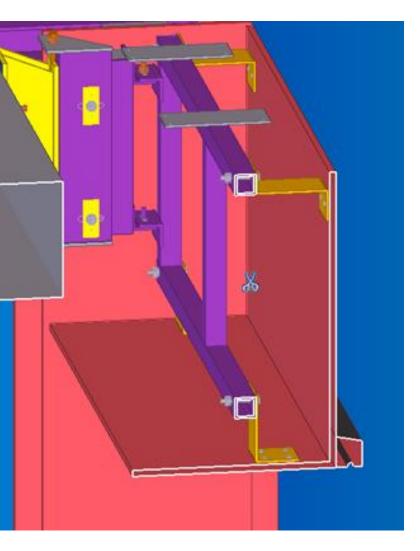


Strong & Reliable



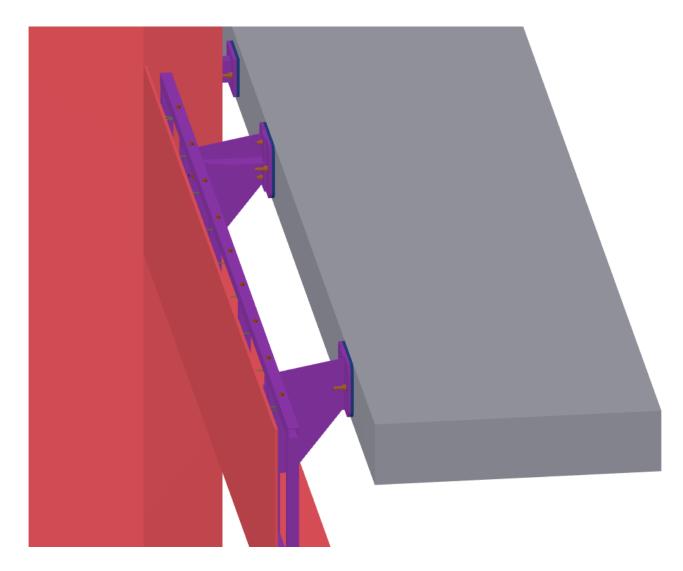








Bonded Fixing – Z & L Anchor plates









Steel pins for supporting above GRC facade panel

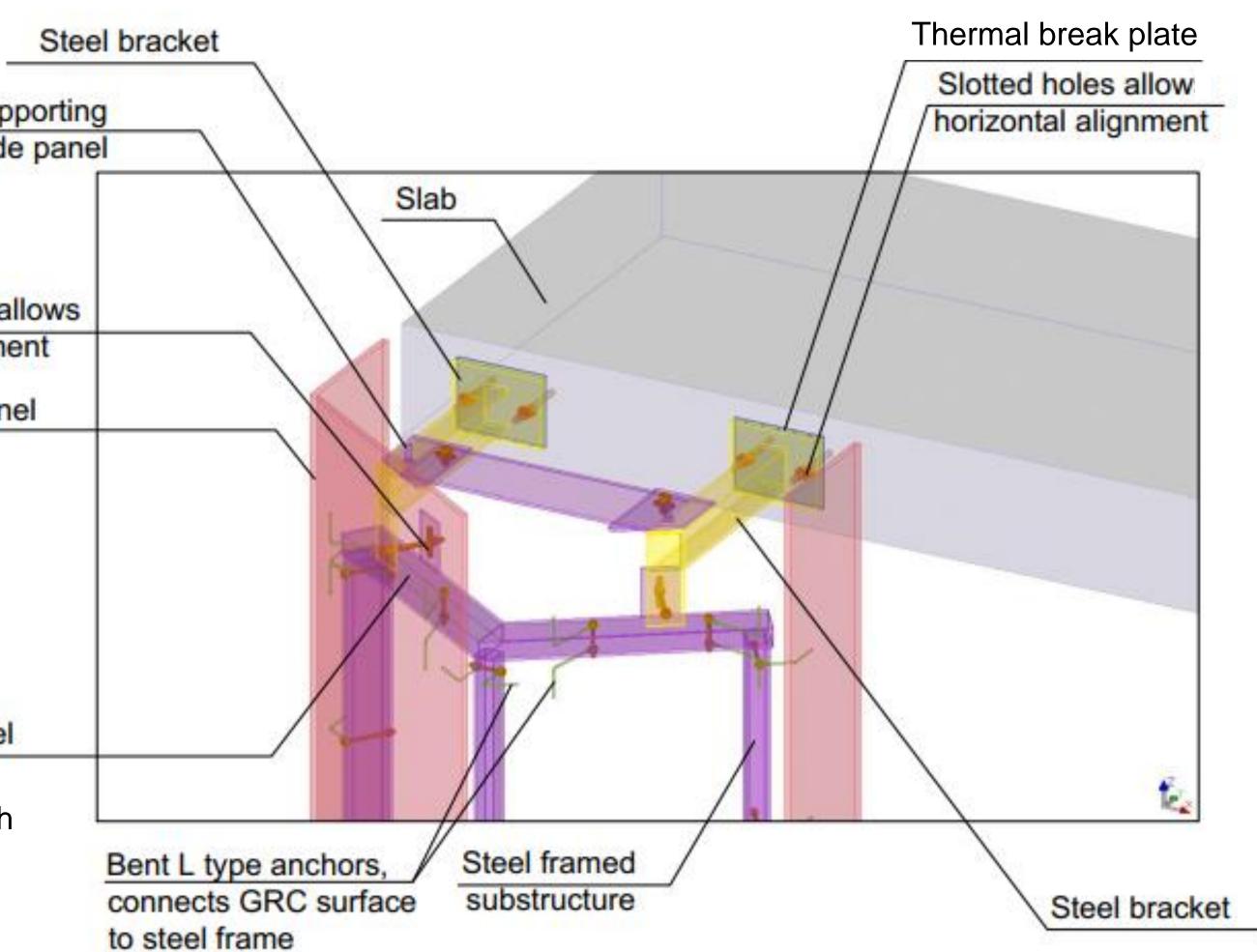
Slotted holes allows vertical alignment

GRC facade panel

Upper part of panel connection

Bolt fixing through plate

Fixings Subframe and studs









Tubular subframe







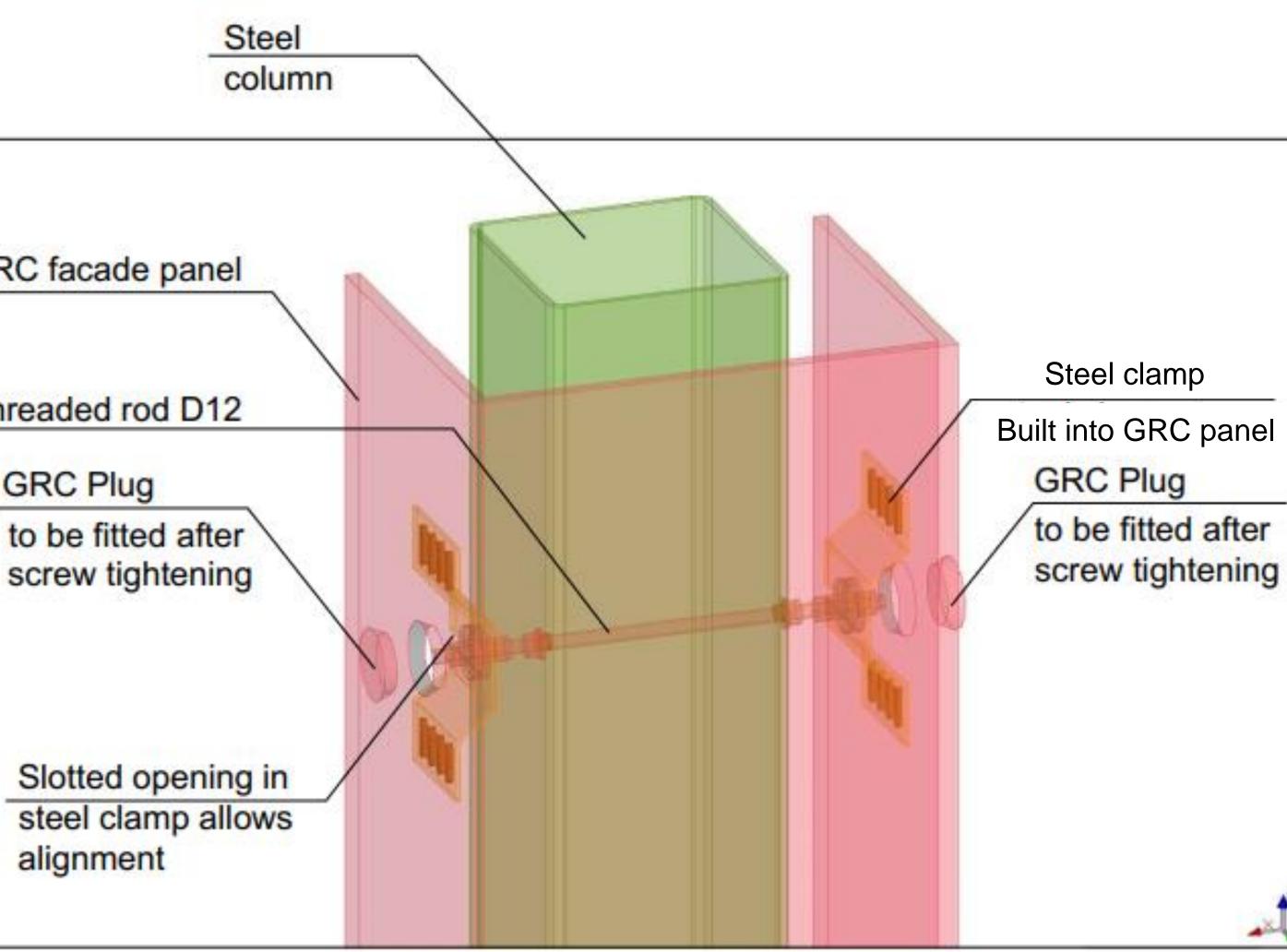
Fixings Bonded fixing – Bent plate anchor

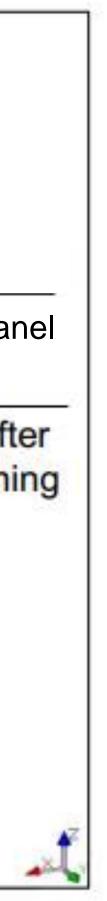
GRC facade panel

Threaded rod D12

GRC Plug

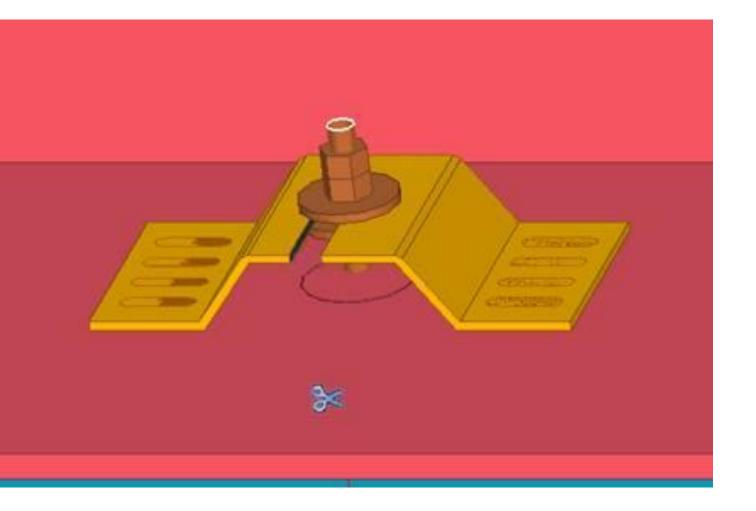
alignment





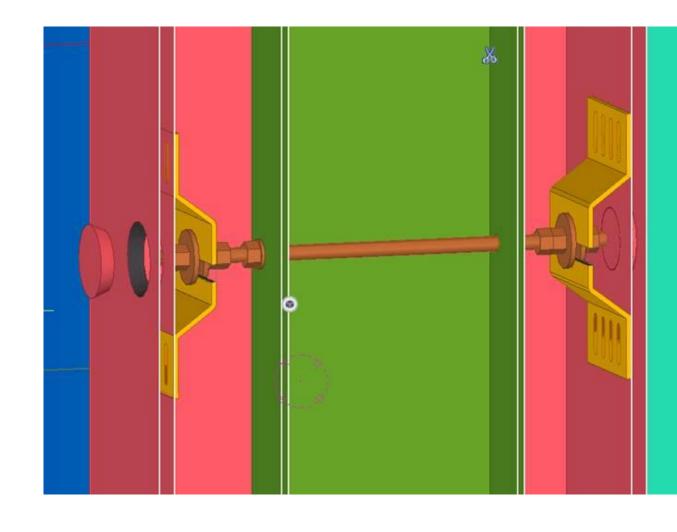








Bonded fixing Bent plate anchor







Fixings Bonded fixing – **Big-Head** anchor



Thickening of GRC facade panel

Big head fastener

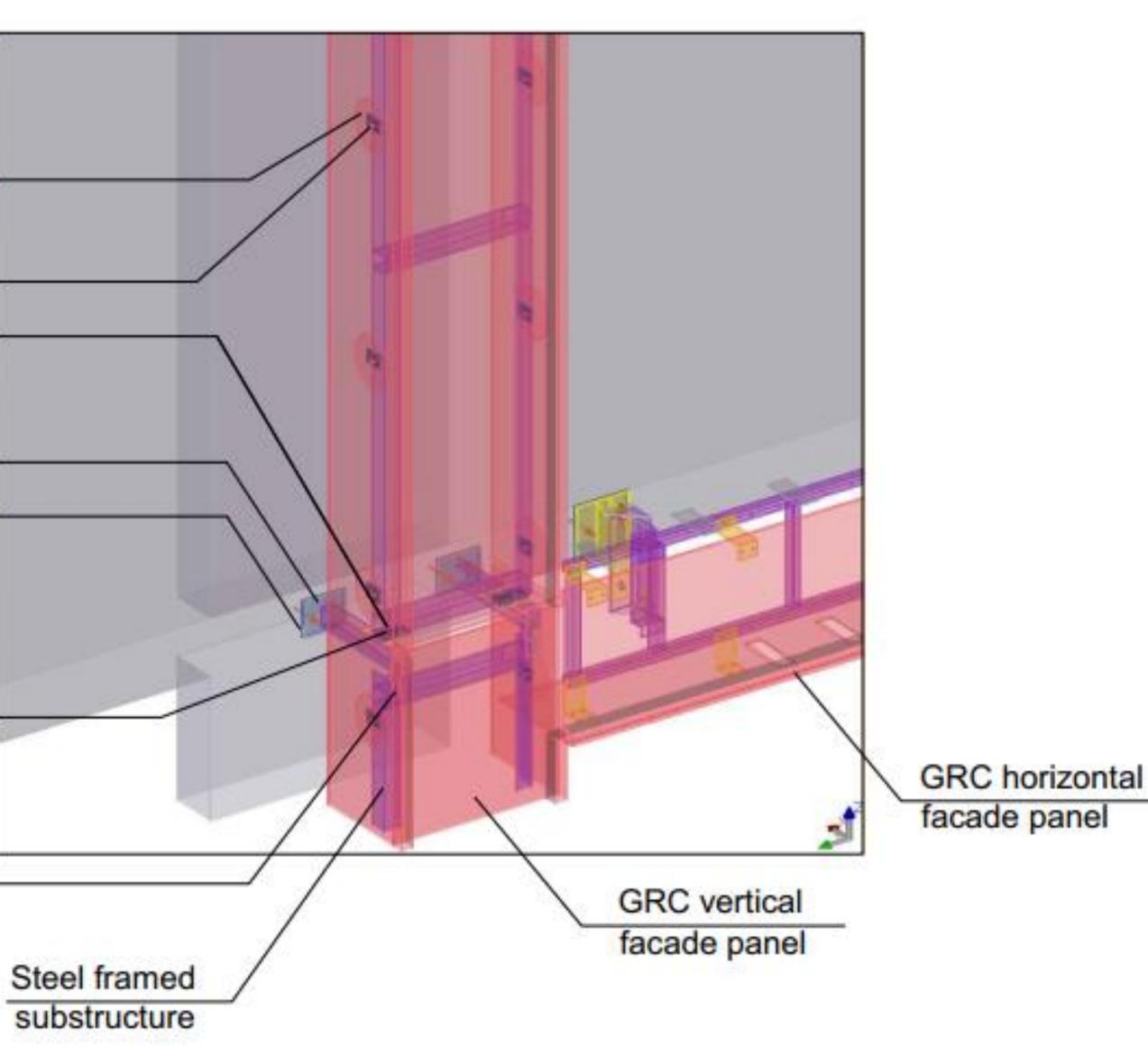
Lower part of connection Fixing by pin

Steel bracket

Thermal break plate

Lower part of panel connection Fixing by pin

Upper part of panel connection Bolt fixing through plate

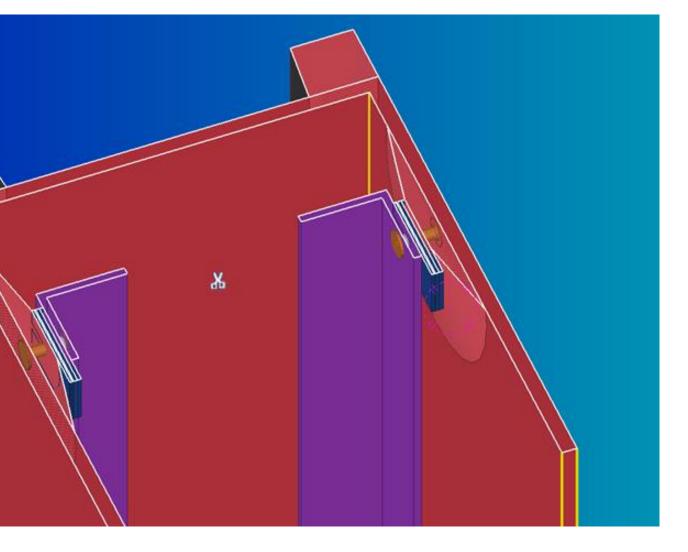


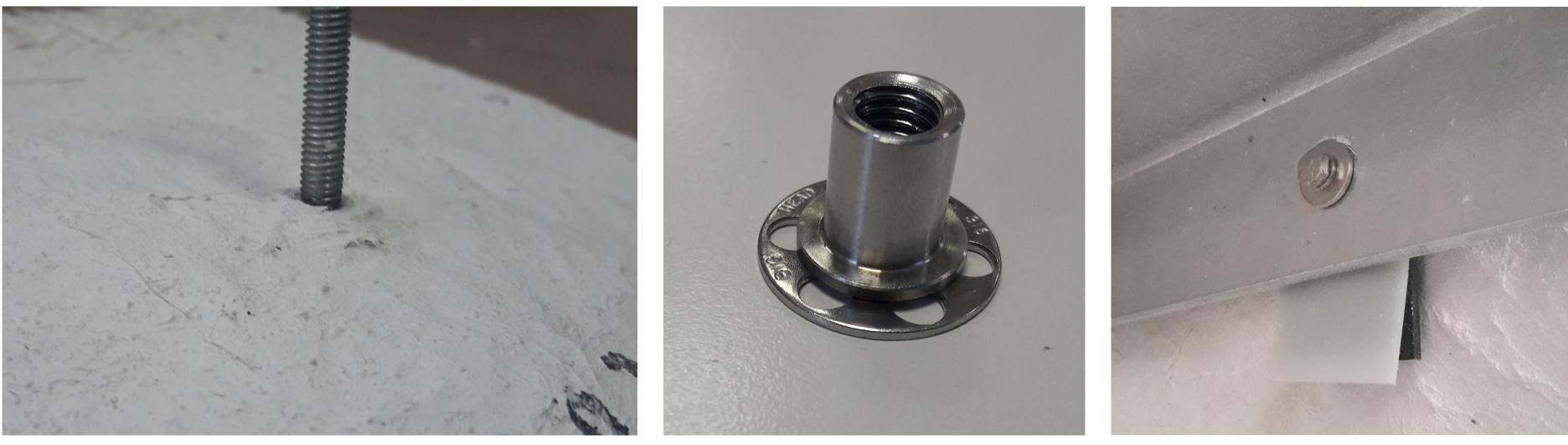
Strong & Reliable











Bonded fixing Bent plate anchor

Pull-out strength 2,5 kN





Complex geometries and endless surface finish options

- **K** Reliable partner with experience in construction and manufacturing
- **GRCA** member with necessary accreditations for UK market

Design and manufacture **O**[†] GRC panels and backing systems









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