

## Tender specification formparts

Formed glassfibre reinforced concrete panels for facade cladding

Status: July 2026

### General

Information in the text of the invitation for tender must be reviewed and, if necessary, supplemented for the object. Further liability by Rieder Smart Elements GmbH & Co KG is excluded. This also applies to printing and writing mistakes and to any subsequent changes. The respective national laws, standards and preliminary remarks for advanced rear-ventilated façades amended from time to time shall apply. Loading, storage and handling provisions of the manufacturer must be observed.

### General construction technique permit

Glassfibre reinforced concrete panels "fibreC" to cover exterior walls are certified with a general construction technique permit (*allgemeine Bauartgenehmigung*) "Z-31.4-166".

### Certificate of conformance Austria

Austrian Certificate of Conformance No.: Z-6.1.2-04-4772

### fibreC formparts

\_\_\_\_\_ rm

#### Technical material description

- fibreC glassfibre reinforced concrete panels produced of mineral raw materials
- Production method by extrusion
- Reinforcement by alkaline-resistant glass fibres in the matrix (CEM-Fil, approval Z-3.72-1731), 2-layer textile glass fabric (each longitudinally and cross-wise) and short fibres
- Continuous colouration of the entire panel. Liquid dyes for colouration of the cement-bound building materials correspond to DIN EN 12878. The pigments used in the liquid dyes are light-, UV- and weather-resilient and not solvable in water, alkalines or diluted acids.
- Building material class A1 not flammable pursuant to DIN 4102 | EN 13501
- Manufacturer certification: ISO 14001:2009 and ISO 9001:2008
- Crystalline silica < 0% - not detectable
- Surface protection: The surface is applied with a transparent hydrophobic coating by default.

### Sizes

- Standard panel dimensions 2,500 x 1,310 mm, 3,100 x 1,310 mm, 3,600 x 1,310 mm special sizes on request
- Dimension deviation length (3.6 m)  $\pm 3$  mm EN 12467
- Dimension deviation width (1.2 m)  $\pm 2$  mm EN 12467
- Diagonal difference up to 1.5 m | above 1.5 m  $\pm 3.5$  mm |  $\pm 4$  mm DIN 18202
- Diagonal difference as of 2.5 m | above 3.6 m  $\pm 5$  mm |  $\pm 6$  mm DIN 18202
- Thickness 13 mm
- Thickness tolerance  $\pm 10$  % EN 12467
- Edge straightness (level 1)  $\pm 0.1$  % EN 12467
- Rectangularity (level 1)  $\pm 2$  mm/m EN 12467

### Physical properties

- Tolerances of plan system up to 0.6 | up to 1.2 | up to 3.6 m  $\pm 2$  mm |  $\pm 4$  mm |  $\pm 8$  mm DIN 18202
- Swelling size 0.384 mm/m
- Shrinkage size 0.737 mm/m
- Raw density (13 mm) 2.0 - 2.42 kg/dm<sup>3</sup> EN 12467
- Bending tensile resilience > 18 N/mm<sup>2</sup> (MOR\*) EN 12467, class 4

- E-modus for deformation calculation approx. 10,000 N/mm<sup>2</sup>
- E-modus for compression calculation approx. 30,000 N/mm<sup>2</sup>
- Dead weight / area weight (13 mm) 26 - 31.5 kg/m<sup>2</sup> depending on shade
- Heat expansion coefficient  $10 \cdot 10^{-6}$  1/°K DIN 51045
- Building material class (panel | system) A1-not flammable | A2-s1,d0 - not flammable DIN 4102 | EN 13501-1
- Temperature stability depending on core moisture up to 350°
- Specific heat capacity approx. 1,000 Joule / (kg\*K)
- Heat conductivity lambda: approx. 2.0 W / (m\*K)
- Moisture expansion  $\pm 0.05$  % EN 12467

## Weather resilience

- Water impermeability passed EN 12467
- Heat-rain alternating test passed EN 12467
- Frost resistance passed EN 12467
- Frost-thaw alternating test passed EN 12467
- UV-light resilience DIN 12878
- Wet storage resilience passed EN 12467
- Hot-water resilience passed EN 12467

\*\* MOR: Modus of Rupture; design values deviate from MOR according to national provisions. The national approvals and provisions on calculation of the rated resistance shall apply

Packed weather-tightly on pallets. Loading, storage and handling provisions of the manufacturer must be observed.  
Ventilated façade covers on existing substructure according to technical provisions and applicable standards.

Supplier of formparts: Rieder Smart Elements GmbH & Co KG  
Gemmerstraße 21, 5751 Maishofen, Österreich  
T +43 6542 690 844, office@rieder.cc, www.rieder.cc

## COLOURS

### Colour collection greyscale:

|              |       |    |
|--------------|-------|----|
| polar white  | _____ | rm |
| off-white    | _____ | rm |
| ivory        | _____ | rm |
| silvergrey   | _____ | rm |
| chrome       | _____ | rm |
| anthracite   | _____ | rm |
| liquid black | _____ | rm |

### Colour collection bricky:

|            |       |    |
|------------|-------|----|
| coralline  | _____ | rm |
| terracotta | _____ | rm |
| oxide red  | _____ | rm |
| burgundy   | _____ | rm |
| merlot     | _____ | rm |

### Colour collection timber:

|        |       |    |
|--------|-------|----|
| larch  | _____ | rm |
| oak    | _____ | rm |
| walnut | _____ | rm |
| ebony  | _____ | rm |
| terra  | _____ | rm |

**Colour collection pietra:**

|           |       |    |
|-----------|-------|----|
| cotton    | _____ | rm |
| vanilla   | _____ | rm |
| sahara    | _____ | rm |
| sandstone | _____ | rm |
| almond    | _____ | rm |

**Other Colours:**

|       |       |    |
|-------|-------|----|
| green | _____ | rm |
|-------|-------|----|

**SURFACE FORMPARTS SHARP-EDGED**

- ferro: sandblasted surface
- ferro light: slightly sandblasted surface
- matt: smooth, brushed surface

**SURFACE FORMPARTS ROUND-EDGED**

- ferro: sandblasted surface
- ferro light: slightly sandblasted surface (on request)

**SPECIAL TEXTURES FORMPARTS SHARP-EDGED**

|                           |       |    |
|---------------------------|-------|----|
| terrazzo black ferro plus | _____ | rm |
| vintage matt              | _____ | rm |
| groove ferro soft         | _____ | rm |
| groove ferro light        | _____ | rm |
| groove ferro              | _____ | rm |
| twine ferro soft          | _____ | rm |
| twine ferro light         | _____ | rm |
| twine ferro               | _____ | rm |
| salt'n'pepper ferro plus  | _____ | rm |
| salt'n'pepper ferro       | _____ | rm |
| luce silver ferro         | _____ | rm |
| lumber ferro              | _____ | rm |
| slate ferro soft          | _____ | rm |

**SPECIAL TEXTURES FORMPARTS ROUND-EDGED**

|                          |       |    |
|--------------------------|-------|----|
| salt'n'pepper ferro plus | _____ | rm |
| salt'n'pepper ferro      | _____ | rm |
| luce silver ferro        | _____ | rm |

## FORMPARTS

### U-shape:

Edge rounded ☐ sharp ☐ \_\_\_\_\_ pcs.  
 Length in mm \_\_\_\_\_  
 Back in mm \_\_\_\_\_  
 Leg 1 in mm \_\_\_\_\_  
 Leg 1 angle in ° \_\_\_\_\_  
 Leg 2 in mm \_\_\_\_\_  
 Leg 2 angle in ° \_\_\_\_\_  
 Diagonal cuts according to drawing no. \_\_\_\_\_  
 Mitre cuts according to drawing no. \_\_\_\_\_

### L-shape:

Edge rounded ☐ sharp ☐ \_\_\_\_\_ pcs.  
 Length in mm \_\_\_\_\_  
 Back in mm \_\_\_\_\_  
 Leg 1 in mm \_\_\_\_\_  
 Leg 1 angle in ° \_\_\_\_\_  
 Diagonal cuts according to drawing no. \_\_\_\_\_  
 Mitre cuts according to drawing no. \_\_\_\_\_

### Round arc:

Unwinding length x unwinding width: \_\_\_\_\_ pcs.  
 Radius: \_\_\_\_\_

## SERVICE

Cut rectangular according to measurements: \_\_\_\_\_ m<sup>2</sup>  
 Special cut (waterjet): \_\_\_\_\_ m  
 Mitre cut (45° for edges): \_\_\_\_\_ m  
 Small cuttings (< 0,7 m<sup>2</sup>): \_\_\_\_\_ pcs.  
 Undercut anchor drilling for KEIL undercut anchor; hs=8.5 \_\_\_\_\_ pcs.  
 Though drilling: Diameter 8 mm for rivet attachment \_\_\_\_\_ pcs.

## ACCESSORIES/FASTENING

### Exposed fastening with rivet

Visible attachment with rivets for aluminium substructure.

Attachment with fixed and sliding points, fixed points must be produced with sleeves.

Attachments: Façade rivet of aluminium with head painting, head diameter 14/16mm, length depending on substructure and panel thickness.

Material: AlMg3 (material no. EN AW-5754 according to DIN EN 573-3:2003-10)  
Rivet mandrel: non-corrosive steel (material no. 1.4541)  
Fixed point sleeve of aluminium, outer diameter 7.7mm, length depending on panel thickness.  
Material: AlMg3 (material no. EN AW-6060 according to DIN EN 573-3:2003-10)

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T +43 6542 690844, [office@rieder.cc](mailto:office@rieder.cc), [www.rieder.cc](http://www.rieder.cc)

## **Concealed fastening with undercut anchor**

Concealed attachment with undercut anchor from Keil with setting depth 8.5mm. Screw length depending on substructure.

Approval number: ETA-06/0220

Supplier: KEIL Befestigungstechnik GmbH  
PO box 1158, 51751 Engelskirchen, Germany  
T +49 2263 807 0  
[mail@keil.eu](mailto:mail@keil.eu), [www.keil.eu](http://www.keil.eu)

## **Concealed fastening by bonding with the Innotec system**

Concealed fastening by bonding using the Innotec system supplied by **Innotec GmbH & Co. KG** on aluminium substrates.

Tested colours: liquid black, chrome, anthracite, ivory, silvergrey, sandstone, terra, walnut, oak, ebony, larch, merlot, terracotta

Approval number: Z-10.8-483 General construction technique permit (Allgemeine Bauartengenehmigung)

Supplier: [www.innotec.info](http://www.innotec.info)

## **CONTACT**

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