



## TECHNICAL DATA SHEET

# FKD-T FB C2 (BRANDRIEGEL)

## 1. PRODUCT DESCRIPTION

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Rock wool insulation boards in accordance with DIN EN 13162.

## 2. FIELD OF APPLICATION

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Fire bar for KEIM external thermal insulation composite systems in accordance with system approval:

Z-33.43-185; Z-33.47-727; Z-33.4.1-45; Z-33.46-1187, sowie Z-33.49-1505.

Generally approved by the building authorities for: exterior walls.

Suitable for: Masonry or concrete, rendered and unrendered; panel material in timber construction; ETICS upgrade system.

Application type according to DIN 4108-10: WAP-zg. Application only suitable as fire bar in ETIC systems with EPS insulation boards. Suitable for building heights up to 100 m. Permissible building height according to the State Building Code.

Not suitable for: horizontal and inclined surfaces exposed to weathering; metallic substrates; saponifiable existing substrates.

## 3. PRODUCT PROPERTIES

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- coated on both sides, applicable without pressure filling?
- easy and fast processing
- with improved heat protection
- fire behaviour: non-flammable, class A1 according to EN 13501-1
- Suitable for fire protection measures in ETICS with EPS
- resistant to aging
- The insulation panels comply with the high standards of the VDPM e.V. (association for insulation systems, renders and mortars)
- Externally monitored by Forschungsinstitut für Wärmeschutz e.V. München

### MATERIAL CHARACTERISTICS:

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| - CE marking code:                                   | MW-EN 13162-T5-DS(70,-)-DS(70,90)- CS(10) 10-TR5 WS-WL(P)-MU 1 |
| - Panel size:  | 1200 x 200 mm  |
| - Panel thickness:                                   | 100 - 300 mm   |
| - Edge formation:                                    | square   |
| - Water vapour diffusion resistance $\mu$ -value:    | 1  |
| - Melting point:                                     | $\geq 1000$ °C   |
| - Glow tolerance according to DIN EN 16733:          | no tendency to continuous smouldering                          |
| - Water absorption at long-term partial immersion:   | WL(P) $\leq 3,0$ kg/m <sup>2</sup>                             |
| - Compressive stress at 10% compression:             | CS(10) $\geq 10$ kPa   |
| - Tensile strength perpendicular to the panel plane: | TR5 $\geq 5$ kPa   |
| - Thickness tolerance:                               | T5 +3 / -1 mm  |
| - Width tolerance:                                   | W2 $\pm 2$ mm  |
| - Length tolerance:                                  | L5 $\pm 5$ mm  |
| - Squareness:  | S5 $\pm 5$ mm/m  |

- Planarity: P ±3 mm/m
- Colour shade: yellow-brown

### 4. APPLICATION INSTRUCTIONS

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#### SUBSTRATE PREPARATION:

The substrate must be strong, dry, clean, sound and free from adhesion-reducing residues. The permanent compatibility of any existing coatings with the adhesive mortar must be examined by an expert.

#### APPLICATION:

Cut to size using an insulation knife or a suitable insulation saw.

#### GLUING:

Gluing of the fire barrier is always performed over the entire surface using the floating-buttering-method. The adhesive mortar is applied full-cover with a middle bed trowel to the grooved adhesive side of the fire barrier and to the substrate. Press the fire barrier immediately into the adhesive mortar and float into position.

The fire barrier must be strictly dowelled with 3 anchors with a metal expansion element (ejotherm STR U 2G). Cuttings have to have at least 2 anchors per strip. Cuttings under 45 cm individual length are not allowed. Unavoidable gaps have to be stuffed with mineral wool. Locations of individual fire barriers as well as necessary additional regulations are specified in the relevant building authority approval certificate. When designing an ETICS with a render finish the following fire barriers on masonry or concrete have to be performed.

#### Plinth fire barrier:

- Height of the plinth fire barrier maximum 0.9 m above ground level or beginning of the ETICS.
- No additional plinth fire barrier is required in patios or balconies that are not ground-level and privately used and accessible.
- Plinth fire barriers may be butted into door and window reveals. Reveal insulation has to be performed non-flammable.

#### Ground level fire barrier:

- Height of the ground level fire barrier is about storey ceiling.
- Maximum distance to the ground level fire barrier is 3.0 m (if required additional fire barriers need to be installed).
- Up and down stepping is permissible up to a maximum height of 1.0 m.

#### Fire barrier in the transition 2nd to 3rd floor:

- Maximum distance to the fire barrier underneath is 8.0 m (if required additional fire barriers need to be installed).
- Up and down stepping is permissible up to a maximum height of 1.0 m.

#### End fire barrier:

- Maximum distance of the end fire barrier is 1.0 m to the end of the ETICS.
- On mineral substrate
- In the area of the parapet, the end fire barrier can be omitted if spread of fire to adjacent combustible insulation materials is prevented.

#### Additional fire barriers:

- Additional fire barriers must be used for buildings with 5 stories or more.
- All-round, every 2 floors
- Up and down stepping is permissible up to a maximum height of 1.0 m. General instruction with regard to gluing: Do not apply adhesive to the panel joints. Do not create an insulation panel joint over a joint in the substrate underneath.

#### DOWELING:

Check the adhesion of the insulation panels after at least 3 days. Insulation panels that are not bonded or damaged must be replaced. The dowelling is carried out in glued and dowelled ETIC systems with ETICS plate dowels according to DIN EN 1991-1-4/NA, that are approved by the building authority or at European level. The required dowel quantity depends on the building height and the respective wind zone in which the building is located.

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### REINFORCEMENT:

After a sufficient setting time of the adhesive, apply the mixed, system-specific reinforcing mortar evenly to the insulation panels, preferably with a 10 mm toothed trowel. Embed the system-specific Glasfaser-Gittermatte (glass fibre mesh), overlap the edges by 10 cm and fill wet-in-wet with system-specific reinforcing mortar. The system-specific Glasfaser-Gittermatte should be embedded in the middle (layer thicknesses up to 6 mm) or in the upper third (layer thicknesses from 6 mm). Thickness of the reinforcing layer depends on the respective system approval and can be in the range of max. 3 - 15 mm. On uncoated sides of mineral wool insulating materials, a press filler must be applied.

## 5. PACKAGING / TECHNICAL DATA

Panel size [mm]	Panel thickness [mm]	m <sup>2</sup> per bundle	m <sup>2</sup> per pallet	Bundle per pallet	Piece per PU
1200 x 200	100	0.96	11.52	12	4
1200 x 200	120	0.96	9.6	10	4
1200 x 200	140	0.96	7.68	8	4
1200 x 200	160	0.96	5.76	6	4
1200 x 200	180	0.96	5.76	6	4
1200 x 200	200	0.96	5.76	6	4
1200 x 200	220	0.48	4.8	10	2
1200 x 200	240	0.48	4.8	10	2
1200 x 200	260	0.48	3.84	8	2
1200 x 200	280	0.48	3.84	8	2
1200 x 200	300	0.48	2.88	6	2

## 6. STORAGE

max. storage time	Storage conditions
no maximum storage time	dry protect against weathering

Max. Observe stacking height of 2 m. Transport packaging is not sufficient weather protection.

## 7. DISPOSAL

Waste code: 17 06 04

### 8. SAFETY INSTRUCTIONS

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No particular indications.

The stated values and properties are the result of extensive development work and practical experience. Our recommendations for application, whether given verbally or in writing, are intended to provide assistance in the selection of our products and do not establish a contractual relationship. In particular, they do not release the purchaser and processor from the obligation to convince themselves of the suitability of our products for the intended application with due care, which is general practice in trade and crafts. The general rules of construction technology must be observed. We reserve the right to make modifications to improve the product or its application. This edition supersedes all earlier editions.

