

**TECHNICAL DATA SHEET** 

# EJOTHERM<sup>®</sup> STR U 2G

# **1. PRODUCT DESCPRIPTION**

Universal screw anchor consisting of plastic anchor with plastic plate and pre-mounted metal screw. European Technical Assessment (ETA): ETA-04/0023, General technical approval: Z-21.2-1769

# 2. FIELD OF APPLICATION

For recessed and flush mounting of insulation boards in KEIM ETIC-Systems according to system approval:

Z-33.43-185; Z-33.4.1-45; Z-33.41-188; Z-33.46-1187; Z-33.49-1505; Z-33.43-942.

Generally approved by the building authorities for: exterior walls; soffits; interior walls; ceiling surfaces, indoors; basement ceilings.

Suitable for: Masonry or concrete, rendered and unrendered; ETICS upgrade system.

ejotherm<sup>®</sup> STR U 2G is suitable for dowelling fire bars.

Can also be used for flush surface installation of insulation boards in KEIM room climate systems.

## **3. PRODUCT PROPERTIES**

- Efficient setting times
- Universally applicable, suitable for all substrates (use category A, B, C, D, E)
- suitable for all insulation panel thicknesses and kinds
- Reliable setting control through use of the associated tool
- Optimised thermal bridges
- Permanent contact pressure Suitable for ETICS on soffits
- With metal expansion element suitable for fire bars

#### **MATERIAL CHARACTERISTICS:**

| <ul> <li>Use categories according to ETA:</li> </ul>         | A, B, C, D, (E)  |
|--|--|
| <ul> <li>Dowel length:</li> </ul>                            | 115 - 455 mm   |
| <ul> <li>Plate diameter:</li> </ul>                          | 60 mm  |
| <ul> <li>Panel thickness:</li> </ul>                         | 60 - 400 mm  |
| <ul> <li>Dowel diameter:</li> </ul>                          | 8 mm   |
| <ul> <li>Anchorage depth:</li> </ul>                         | 25 mm (65 mm)  |
| <ul> <li>Drill hole depth, recessed installation:</li> </ul> | 50 mm (90 mm)  |
| <ul> <li>Drill hole depth, flush installation:</li> </ul>    | 35 mm (75 mm)  |
| <ul> <li>Point-related heat transfer coefficient</li> </ul>  | Surface-flush mounted with EPS plugs: 0.002 W/K; Recessed mounted with |
| (chi value):   | insulation rondelle: 0.001 W/K   |
| – Colour shade:  | white  |
| MATERIAL CHARACTERISTICS:                                    |  |
| <ul> <li>Panel thickness:</li> </ul>                         | 60 - 400 mm  |
| <ul> <li>Colour shade:</li> </ul>                            | white  |

## **4. APPLICATION INSTRUCTIONS**

#### SUBSTRATE PREPARATION:

To use the anchor on substrates that do not fall into the approved use categories, anchor pull-out tests must be carried out on the building and documented.

Check the adhesion of the insulation panels after at least 3 days. Insulation panels that are not bonded or damaged must be replaced.

#### **APPLICATION CONDITIONS:**

Ambient and substrate temperature during application and drying from min. 0 °C to max. 40 °C. Do not apply in direct sunlight or on sun-heated substrates. Protect surfaces from direct sun, wind and rain during and after application.

#### **APPLICATION:**

Combinable with the anchor plates ejotherm VT 90, ejotherm VT 2G and ejotherm SBL 140 plus. The use of system-specific tools for optimal anchor installation is recommended. Countersunk installation is only possible from 100 mm insulation panel thickness.

#### **DOWELING:**

Anchoring is carried out in glued and dowelled ETIC systems using ETICS fasteners approved by the general building authorities or by the European authorities according to DIN EN 1991-1-4/NA. The required dowel quantity depends on the building height and the respective wind zone in which the object is located. For further information, please refer to our ETICS Technical Guide, Chapter #8, ETICS Wind Suction Loads. ejotherm® STR U 2G may also be used on sub-views: Anchoring is performed through the reinforcement mesh using ETICS fasteners approved by the general building authorities or by the European authorities. The required fastener quantity and the grid dimension depend on the insulation thickness, the building height and the respective wind zone in which the object is located. At soffits, doweling through the fabric is generally mandatory, even in only glued systems. In only glued ETIC systems, constructive anchoring with suitable ETICS anchors is permissible. In the base area, the perimeter and base insulation panels can additionally be mechanically fastened with ETICS fasteners approved by the building authorities. The minimum number of fasteners is 4 fasteners /m<sup>2</sup>. In the area of the vertical structural sealing (up to 150 mm above ground level), the insulation panels must not be dowelled. The insulation panel may also be used as a basement ceiling insulation panel: Without fire protection requirements: The insulation panels may only be glued to new substrates up to a maximum weight per unit area of 15 kg/m<sup>2</sup> (including any final coating). In the case of insufficiently load-bearing substrates (old substrates) or if the permissible weight per unit area is exceeded, dowelling is carried out using ETICS anchors approved by the general building authorities or by the European authorities. Minimum number of anchors: 2 anchors per insulation board cut. With fire protection requirements: If necessary, dowel with the basement ceiling insulation screw DDS-Z and the basement ceiling insulation washer DDT. ejotherm® STR U 2G may also be used in KEIM room air conditioning systems: In the case of subsequent tiling work, the panels are additionally fastened through the mesh with suitable screw anchors and finished with another layer of Universalputz.

| Dowel<br>length<br>[mm] | Panel<br>thickness<br>[mm] | Drill hole depth,<br>flush installation | Drill hole depth,<br>recessed<br>installation | Pieces<br>per unit |
|-------------------------|----------------------------|---|---|--------------------|
| 115                     | 60                         | 35 mm (75 mm)*                          | -   | 100                |
| 115                     | 80                         | 35 mm (75 mm)*                          | -   | 100                |
| 135                     | 100                        | 35 mm (75 mm)*                          | 50 mm (90 mm)*                                | 100                |
| 155                     | 120                        | 35 mm (75 mm)*                          | 50 mm (90 mm)*                                | 100                |
| 175                     | 140                        | 35 mm (75 mm)*                          | 50 mm (90 mm)*                                | 100                |
| 195                     | 160                        | 35 mm (75 mm)*                          | 50 mm (90 mm)*                                | 100                |
| 215                     | 180                        | 35 mm (75 mm)*                          | 50 mm (90 mm)*                                | 100                |
| 235                     | 200                        | 35 mm (75 mm)*                          | 50 mm (90 mm)*                                | 100                |
| 255                     | 220                        | 35 mm (75 mm)*                          | 50 mm (90 mm)*                                | 100                |
| 275                     | 240                        | 35 mm (75 mm)*                          | 50 mm (90 mm)*                                | 100                |
| 295                     | 260                        | 35 mm (75 mm)*                          | 50 mm (90 mm)*                                | 100                |

#### 5. PACKAGING / TECHNICAL DATA

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| Dowel<br>length<br>[mm] | Panel<br>thickness<br>[mm] | Drill hole depth,<br>flush installation | Drill hole depth,<br>recessed<br>installation | Pieces<br>per unit |
|-------------------------|----------------------------|---|---|--------------------|
| 315                     | 280                        | 35 mm (75 mm)*                          | 50 mm (90 mm)*                                | 100                |
| 335                     | 300                        | 35 mm (75 mm)*                          | 50 mm (90 mm)*                                | 100                |
| 355                     | 320                        | 35 mm (75 mm)*                          | 50 mm (90 mm)*                                | 100                |
| 375                     | 340                        | 35 mm (75 mm)*                          | 50 mm (90 mm)*                                | 100                |
| 395                     | 360                        | 35 mm (75 mm)*                          | 50 mm (90 mm)*                                | 100                |
| 415                     | 380                        | 35 mm (75 mm)*                          | 50 mm (90 mm)*                                | 100                |
| 435                     | 400                        | 35 mm (75 mm)*                          | 50 mm (90 mm)*                                | 100                |
| 455                     | 420                        | 35 mm (75 mm)*                          | 50 mm (90 mm)*                                | 100                |

#### **RELATED PRODUCTS**

| Product name                      | Panel thickness | Pieces per unit | Type of container |
|-----------------------------------|-----------------|-----------------|-------------------|
| STR Stopfen                       |                 | 500             | carton            |
| STR-Rondelle EPS                  | ab 100 mm       | 100             | carton            |
| STR-Rondelle EPS grau             | ab 100 mm       | 100             | carton            |
| STR-Rondelle MW                   | ab 100 mm       | 100             | carton            |
| Dübelteller ejotherm VT 2G        | ab 100 mm       | 100             | carton            |
| Dübelteller ejotherm VT 90        |                 | 100             | carton            |
| Ejotherm STR Rondelle-MW          | ab 100 mm       | 100             | carton            |
| Ejotherm STR Rondelle-EPS grau    | ab 100 mm       | 100             | carton            |
| Dübelteller ejotherm SBL 140 Plus |                 | 100             | carton            |

\* Use category A, B, C, D, (E); standard values for new build substrates.

## ORDER SIZE

Order length of fastener = insulation material thickness + layer thickness of adhesive mortar + possibly existing thickness of old render + anchorage depth

### **ASSEMBLY TOOLS**

ejotherm<sup>®</sup> STR-tool 2GE ejotherm<sup>®</sup> STR-Bit TX30-M8 x 52 Torx Bit T 30 (lang)

## 6. STORAGE

| max. storage time       | Storage conditions                |
|-------------------------|-----------------------------------|
| no maximum storage time | dry<br>protect against weathering |

## 7. DISPOSAL

Waste code: 17 09 04

## 8. SAFETY INSTRUCTIONS

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.

