European Technical Assessment

ETA-04/0023
of 5 June 2023

English translation prepared by DIBt - Original version in German language

General Part

Technical Assessment Body issuing the European Technical Assessment: Deutsches Institut für Bautechnik

Trade name of the construction product ejotherm STR U, ejotherm STR U 2G and ejotherm SDK U

Product family Plastic anchor for fixing of external thermal insulation composite systems with rendering

to which the construction product belongs

Manufacturer EJOT SE & Co. KG

Astenbergstraße 21
57319 Bad Berleburg
DEUTSCHLAND

Manufacturing plant EJOT manufacturing plant 1, 2, 3, 4

This European Technical Assessment contains 23 pages including 3 annexes which form an integral part of this assessment

This European Technical Assessment is issued in accordance with Regulation (EU) No 305/2011, on the basis of EAD 330196-01-0604 edition 10/2017

This version replaces ETA-04/0023 issued on 17 October 2017
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Specific Part

1 Technical description of the product

The screwed-in anchor type ejotherm STR U and ejotherm STR U 2G with a plate consists of a plastic part made of virgin polyethylene, an accompanying specific screw made of stainless steel or galvanised steel and an anchor cap made of polystyrene (for mounting the anchor on the surface of the insulating material) or an insulation cover made of polystyrene or mineral wool (for deep mounting of the anchor in the insulating material).

For mounting on the surface the anchor may additionally be combined with the anchor plates SBL 140 plus, VT 90 or VT 2G, made of polyamide.

The screwed-in anchor type ejotherm SDK U with a collar consists of a plastic part made of virgin polyethylene and an accompanying specific screw of stainless steel or galvanised steel.

An illustration and the description of the product are given in Annex A.

2 Specification of the intended use in accordance with the applicable European Assessment Document

The performances given in Section 3 are only valid if the anchor is used in compliance with the specifications and conditions given in Annex B.

The verifications and assessment methods on which this European Technical Assessment is based lead to the assumption of a working life of the anchor of at least 25 years. The indications given on the working life cannot be interpreted as a guarantee given by the producer, but are to be regarded only as a means for choosing the right products in relation to the expected economically reasonable working life of the works.

3 Performance of the product and references to the methods used for its assessment

3.1 Safety and accessibility in use (BWR 4)

<table>
<thead>
<tr>
<th>Essential characteristic</th>
<th>Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Characteristic load bearing capacity</td>
<td></td>
</tr>
<tr>
<td>- Characteristic resistance under tension load</td>
<td>See Annex C 1</td>
</tr>
<tr>
<td>- Minimum edge distance and spacing</td>
<td>See Annex B 2</td>
</tr>
<tr>
<td>Displacements</td>
<td>See Annex C 3</td>
</tr>
<tr>
<td>Plate stiffness</td>
<td>See Annex C 2</td>
</tr>
</tbody>
</table>

3.2 Energy economy and heat retention (BWR 6)

<table>
<thead>
<tr>
<th>Essential characteristic</th>
<th>Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Point thermal transmittance</td>
<td>See Annex C 2</td>
</tr>
</tbody>
</table>

4 Assessment and verification of constancy of performance (AVCP) system applied, with reference to its legal base

In accordance with EAD No. 330196-01-0604, the applicable European legal act is: [97/463/EC]. The system to be applied is: 2+
5 Technical details necessary for the implementation of the AVCP system, as provided for in the applicable European Assessment Document

Technical details necessary for the implementation of the AVCP system are laid down in the control plan deposited with Deutsches Institut für Bautechnik.

Issued in Berlin on 5 June 2023 by Deutsches Institut für Bautechnik

Dipl.-Ing. Beatrix Wittstock
Head of Section

beglaubigt:
Ziegler
**Intended use**
- Anchorage of ETICS in concrete and masonry
- Anchorage of ETICS in autoclaved aerated concrete and lightweight aggregate concrete

**Legend:**
- $h_D$ = thickness of insulation material
- $h_{ef}$ = effective anchorage depth
- $h$ = thickness of member (wall)
- $h_{1,2}$ = depth of drilled hole to deepest point
- $h_R$ = thickness of insulation cover
- $t_{ol}$ = thickness of equalizing layer or non-load-bearing coating

**Product description**

Installed condition

Annex A 1
Components for deep mounting in base material group A, B, C, D

Marking
Identifying mark: EJOT
Anchor type: ejotherm STR U
Anchor length: z.B. 135
Base material group: A, B, C, D, E

marking of effective anchoring depth
anchor geometry from length 355 – 455 mm

ejotherm STR U / STR U 2G mounting tool

Insulation cover

ejotherm STR U, ejotherm STR U 2G and ejotherm SDK U

Product description
Components for deep mounting, ejotherm STR U, base material group A, B, C, D

Annex A 2
Components for mounting flushed on the surface in base material group A, B, C, D

marking of effective anchoring depth

marking of effective anchoring depth

anchor geometry from length 355 – 455 mm

ejotherm STR U / STR U 2G mounting

marking of effective anchoring depth

Table A1: Dimensions

<table>
<thead>
<tr>
<th>Anchor Type</th>
<th>Colour</th>
<th>Anchor sleeve</th>
<th>Accompanying specific screw</th>
<th>Anchor cap</th>
<th>Insulation cover</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>d_{nom}</td>
<td>h_{ef}</td>
<td>min L_s</td>
<td>max L_s</td>
</tr>
<tr>
<td>STR U</td>
<td>nature</td>
<td>8</td>
<td>25</td>
<td>115</td>
<td>455</td>
</tr>
<tr>
<td>SDK U</td>
<td>nature</td>
<td>8</td>
<td>25</td>
<td>45</td>
<td>125</td>
</tr>
</tbody>
</table>

Determination of maximum thickness of insulation h_D for ejotherm STR U:

\[
h_D = L_s - t_{tol} - h_{ef}
\]

(e.g. \( h_D = 115 - 10 - 25 \))

\( h_{D_{max}} = 80 \)

ejotherm STR U, ejotherm STR U 2G and ejotherm SDK U

Product description

Components for mounting on the surface, ejotherm STR U, SDK U base material group A, B, C, D, dimensions

Annex A 3
Components for deep mounting in base material group A, B, C, D

marking of effective anchoring depth

Marking
Identifying mark: EJOT
Anchor type: ejotherm STR U 2G
Anchor length: z.B. 175
Base material group: A, B, C, D, E

marking of effective anchoring depth
anchor geometry from length 355 – 455 mm and 505 mm

ejotherm STR U / STR U 2G mounting tool
Insulation cover

ejotherm STR U, ejotherm STR U 2G and ejotherm SDK U

Product description
Components for deep mounting, ejotherm STR U 2G, base material group A, B, C, D

Annex A 4
Components for mounting flushed on the surface in base material group A, B, C, D

<table>
<thead>
<tr>
<th>Anchor Type</th>
<th>Colour</th>
<th>Anchor sleeve</th>
<th>Accompanying specific screw</th>
<th>Anchor cap</th>
<th>Insulation cover</th>
</tr>
</thead>
<tbody>
<tr>
<td>STR U 2G</td>
<td>nature</td>
<td>8 25 115 455 5.5 60 78 338</td>
<td>23 15 15 66</td>
<td></td>
<td></td>
</tr>
<tr>
<td>STR U 2G</td>
<td>nature</td>
<td>8 25 505 5.5 60</td>
<td>398 23 15 15 66</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Determination of maximum thickness of insulation $h_D$ for ejotherm STR U 2G:

$$h_D = L_a - t_{bol} - h_{ef}$$

(e.g. $h_D = 115 - 10 - 25$)

$hd_{max.} = 80$

Product description

Components for mounting on the surface, ejotherm STR U 2G base material group A, B, C, D, dimensions

Annex A 5
Components for deep mounting in base material group E

Marking
Identifying mark: EJOT
Anchor type: ejotherm STR U
Anchor length: z.B. 135
Base material group: A, B, C, D, E

ejotherm STR U / STR U 2G mounting tool

Insulation cover

ejotherm STR U, ejotherm STR U 2G and ejotherm SDK U

Product description
Components for deep mounting, ejotherm STR U, base material group E
Components for mounting flushed on the surface in base material group E

![Diagram of components for mounting flushed on the surface in base material group E]

**Marking**
- Identifying mark: EJOT
- Anchor type: ejotherm STR U
- Anchor length: z.B. 135
- Base material group: A, B, C, D, E

**Anchor cap (to lock up the anchor in case of mounting on the surface)**

**Marking:**
- Identifying mark: EJOT
- Anchor type: ejotherm SDK U
- Anchor length: e.g. 85

---

**Table A3: Dimensions**

<table>
<thead>
<tr>
<th>Anchor Type</th>
<th>Colour</th>
<th>Anchor sleeve</th>
<th>Accompanying specific screw</th>
<th>Measures in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>d&lt;sub&gt;nom&lt;/sub&gt;</td>
<td>h&lt;sub&gt;ef&lt;/sub&gt;</td>
<td>min L&lt;sub&gt;a&lt;/sub&gt;</td>
</tr>
<tr>
<td>STR U</td>
<td>nature</td>
<td>8</td>
<td>65</td>
<td>115</td>
</tr>
<tr>
<td>SDK U</td>
<td>nature</td>
<td>8</td>
<td>65</td>
<td>45</td>
</tr>
</tbody>
</table>

Determination of maximum thickness of insulation h<sub>0</sub> for ejotherm STR U:

\[ h_0 = L_a - t_{tot} - h_{ef} \]

(e.g. \( L_a = 155; t_{tot} = 10 \))

\[ h_{D_{max}} = 80 \]

---

**Product description**
- Components for mounting on the surface, ejotherm STR U, SDK U base material group E, dimensions

Annex A 7
Components for deep mounting in base material group E

Marking
Identifying mark: EJOT
Anchor type: ejotherm STR U 2G
Anchor length: z.B. 175
Base material group: A, B, C, D, E

marking of effective anchoring depth
anchor geometry from length 355 – 455 mm and 505 mm

ejotherm STR U / STR U 2G mounting tool

Insulation cover

ejotherm STR U, ejotherm STR U 2G and ejotherm SDK U

Product description
Components for deep mounting, ejotherm STR U 2G, base material group E
Components for mounting flushed on the surface in base material group E

Marking
Identifying mark: EJOT
Anchor type: ejotherm STR U 2G
Anchor length: z.B. 175
Base material group: A, B, C, D, E

Anchor cap (to lock up the anchor in case of mounting on the surface)

ejotherm STR U / STR U 2G mounting tool

Table A4: Dimensions

<table>
<thead>
<tr>
<th>Anchor Type</th>
<th>Colour</th>
<th>Anchor sleeve</th>
<th>Accompanying specific screw</th>
<th>Anchor cap</th>
<th>Insulation cover</th>
</tr>
</thead>
<tbody>
<tr>
<td>STR U 2G</td>
<td>nature</td>
<td>8 65 min Lₐ max Lₐ</td>
<td>dₛ c min lₛ max lₛ</td>
<td>h_c d_c h_R d_R</td>
<td></td>
</tr>
<tr>
<td>STR U 2G</td>
<td>nature</td>
<td>8 65 min Lₐ max Lₐ</td>
<td>505 5,5 60 78 338</td>
<td>23 15 15 66</td>
<td></td>
</tr>
</tbody>
</table>

Determination of maximum thickness of insulation $h_D$ for ejotherm STR U 2G:

\[
h_D = L_a - t_{bol} - h_{ef} \quad (L_a = \text{e.g.} \ 155; t_{bol} = 10)
\]

\[
e.g. \quad h_D = 155 - 10 - 65
\]

\[
 h_{D\text{max.}} = 80
\]

Product description
Components for mounting on the surface, ejotherm STR U 2G
base material group E, dimensions

Annex A 9
ejotherm STR U, ejotherm STR U 2G and ejotherm SDK U

**Product description**
Anchor plates in combination with ejotherm STR U and ejotherm STR U 2G
### Table A5: Materials

<table>
<thead>
<tr>
<th>Name</th>
<th>Materials</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchor sleeve</td>
<td>virgin polyethylene PE-HD colour: nature, yellow, orange, red, blue, grey</td>
</tr>
<tr>
<td>Insulation cover</td>
<td>Polystyrene PS 20</td>
</tr>
<tr>
<td></td>
<td>Mineral wool type HD</td>
</tr>
<tr>
<td>Insulation cap</td>
<td>Polystyrene PS 30</td>
</tr>
<tr>
<td>Specific screw</td>
<td>Steel, electro galvanized ≥ 5 μm according EN ISO 4042:2018 blue passivated</td>
</tr>
<tr>
<td></td>
<td>Stainless steel according EN ISO 3506-1:2020 material number 1.4401 or 1.4571</td>
</tr>
<tr>
<td></td>
<td>material number 1.4301 or 1.4567</td>
</tr>
</tbody>
</table>

### Table A6: Anchor plate, diameter and materials

<table>
<thead>
<tr>
<th>anchor plate</th>
<th>Ø D [mm]</th>
<th>Ø d₁ [mm]</th>
<th>d [mm]</th>
<th>material</th>
</tr>
</thead>
<tbody>
<tr>
<td>VT 90</td>
<td>90</td>
<td>18,5</td>
<td>1,2</td>
<td>PA 6, PA GF 50</td>
</tr>
<tr>
<td>SBL 140 plus</td>
<td>140</td>
<td>20,0</td>
<td>2,0</td>
<td>PA GF 50</td>
</tr>
<tr>
<td>VT 2G</td>
<td>112</td>
<td>29,0</td>
<td>1,5</td>
<td>PA GF 50</td>
</tr>
</tbody>
</table>

ejotherm STR U, ejotherm STR U 2G and ejotherm SDK U

**Product description**

Materials

Annex A 11
Specifications of intended use

Anchorages subject to:

- The anchor may only be used for transmission of wind suction loads and shall not be used for the transmission of dead loads of the thermal insulation composite system.

Base materials:

- Compacted normal weight concrete without fibres (base material group A) according to Annex C 1
- Solid masonry (base material group B), according to Annex C 1
- Hollow or perforated masonry (base material group C), according to Annex C 1
- Lightweight aggregate concrete (base material group D), according to Annex C 1
- Autoclaved aerated concrete (base material group E), according to Annex C 1
- For other base materials of the base material groups A, B, C, D or E the characteristic resistance of the anchor may be determined by job site tests according to EOTA Technical Report TR 051 edition April 2018.

Temperature Range:

- 0°C to +40°C (max. short term temperature +40°C and max. long term temperature +24°C)

Design:

- The anchorages are designed under the responsibility of an engineer experienced in anchorages and masonry work with the partial safety factors $\gamma_M = 2.0$ and $\gamma_F = 1.5$, if there are no other national regulations.
- Verifiable calculation notes and drawings are prepared taking account of the loads to be anchored. The position of the anchor is indicated on the design drawings.
- Fasteners are only to be used for multiple fixings of thermal insulation composite systems.

Installation:

- Hole drilling by the drill modes according to Annex C1.
- Anchor installation carried out by appropriately qualified personnel and under the supervision of the person responsible for technical matters of the site.
- Installation temperature from 0°C to +40°C
- Exposure to UV due to solar radiation of the anchor not protected by rendering ≤ 6 weeks

<table>
<thead>
<tr>
<th>Intended use</th>
<th>Annex B 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>ejotherm STR U, ejotherm STR U 2G and ejotherm SDK U</td>
<td></td>
</tr>
</tbody>
</table>

Z49923.23

8.06.04-50/23
### Table B1: Installation parameters

<table>
<thead>
<tr>
<th>Anchor type</th>
<th>ejo therm STR U / STR U 2G</th>
<th>ejo therm SDK U</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base material group</td>
<td>A B C D</td>
<td>E</td>
</tr>
<tr>
<td>Drill hole diameter</td>
<td>$d_0$ [mm]</td>
<td>8</td>
</tr>
<tr>
<td>Cutting diameter</td>
<td>$d_{cut}$ [mm] (\leq)</td>
<td>8,45</td>
</tr>
<tr>
<td>Depth of drilled hole</td>
<td>$h_1$ [mm] (\geq)</td>
<td>50</td>
</tr>
<tr>
<td>- deep mounting</td>
<td></td>
<td>90</td>
</tr>
<tr>
<td>- mounting on the surface</td>
<td>$h_2$ [mm] (\geq)</td>
<td>35</td>
</tr>
<tr>
<td>Effective anchorage depth</td>
<td>$h_{ef}$ [mm] (\geq)</td>
<td>25</td>
</tr>
</tbody>
</table>

### Table B2: Anchor distances and dimensions of members

<table>
<thead>
<tr>
<th>Anchor type</th>
<th>ejo therm STR U / STR U 2G / SDK U</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base material group</td>
<td>A B C D</td>
</tr>
<tr>
<td>Minimum spacing</td>
<td>$s_{min}$ [mm] (\geq)</td>
</tr>
<tr>
<td>Minimum edge distance</td>
<td>$c_{min}$ [mm] (\geq)</td>
</tr>
<tr>
<td>Minimum thickness of member</td>
<td>$h$ [mm] (\geq)</td>
</tr>
<tr>
<td>- deep mounting</td>
<td>(only thin skins of concrete)</td>
</tr>
<tr>
<td>- mounting on the surface</td>
<td>$h$ [mm] (\geq)</td>
</tr>
</tbody>
</table>

### Scheme of distance and spacing

![Diagram of anchor installation parameters](image)

**ejotherm STR U, ejotherm STR U 2G and ejotherm SDK U**

**Annex B 2**

**Intended use**

Installations parameters, anchor distances and dimensions of members
1. Drill the hole

2. Insert the anchor

3. Countersunk installation with STR-tool

4. Insert the ejotherm STR - insulation cover with the help of a float

**Intended use**
Installation instructions countersunk mounted with STR insulation cover

Annex B 3
**Intended use**

Installation instructions - surface fixed installation with STR plug

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ejotherm STR U, ejotherm STR U 2G and ejotherm SDK U

Annex B 4
1. Drill the hole
2. Assemble anchor and plate VT 2G
3. Assemble anchor and plate VT 2G
4. Insert the anchor into the drill hole
5. Drive through VT 2G until plate rests on surface
6. Mounting on the surface with STR tool
7. Insert the ejotherm STR-Cap
8. Installed anchor

**Intended use**
Installation instructions - countersunk fixed installation with VT 2G plate and with STR insulation cover

Annex B 5
<table>
<thead>
<tr>
<th>Base materials</th>
<th>Bulk density $\rho$ [kg/dm³]</th>
<th>minimum compressive strength $f_0$ [N/mm²]</th>
<th>General remarks</th>
<th>Drill method</th>
<th>$N_{Rk}$ [kN]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concrete C12/15 – C50/60 as per EN 206:2013+A1:2016</td>
<td></td>
<td></td>
<td>Compacted normal weight concrete without fibres thickness of the thin skin 100 mm &gt; h ≥ 40 mm</td>
<td>hammer</td>
<td>1,5</td>
</tr>
<tr>
<td>concrete C16/20 – C50/60 as per EN 206:2013+A1:2016 thin concrete members (thin skin)</td>
<td></td>
<td></td>
<td></td>
<td>hammer</td>
<td>1,5</td>
</tr>
<tr>
<td>Clay bricks, Mz ap per EN 771-1:2011+A1:2015</td>
<td>$\geq 1,8$</td>
<td>12</td>
<td>Vertically perforation up to 15 %$^4$</td>
<td>hammer</td>
<td>1,5</td>
</tr>
<tr>
<td>Sand-lime solid bricks, KS as per EN 771-2:2011+A1:2015</td>
<td>$\geq 1,8$</td>
<td>12</td>
<td>Vertically perforation up to 15 %$^4$</td>
<td>hammer</td>
<td>1,5</td>
</tr>
<tr>
<td>Vertically perforated clay bricks, Hlz as per EN 771-1:2011+A1:2015</td>
<td>$\geq 1,2$</td>
<td>12</td>
<td>Vertically perforation &gt;15 % and ≤ 50 %$^4$</td>
<td>rotary</td>
<td>1,2$^1$</td>
</tr>
<tr>
<td>Vertically perforated clay bricks, Hlz as per EN 771-1:2011+A1:2015</td>
<td>$\geq 0,8$</td>
<td>12</td>
<td>Vertically perforation &gt;15 % and ≤ 50 %$^4$</td>
<td>rotary</td>
<td>1,1$^1$</td>
</tr>
<tr>
<td>Lightweight concrete solid blocks, V as per EN 771-3:2011+A1:2015</td>
<td>$\geq 0,9$</td>
<td>4</td>
<td>Vertically perforation &gt;15 % and ≤ 50 %$^4$</td>
<td>rotary</td>
<td>0,6</td>
</tr>
<tr>
<td>Sand-lime perforated bricks, KSL as per EN 771-2:2011+A1:2015</td>
<td>$\geq 1,6$</td>
<td>12</td>
<td>Vertically perforation &gt;15 % and ≤ 50 %$^4$</td>
<td>rotary</td>
<td>1,5$^2$</td>
</tr>
<tr>
<td>Lightweight concrete hollow blocks, Hbl. as per EN 771-3:2011+A1:2015</td>
<td>$\geq 0,5$</td>
<td>2</td>
<td>Vertically perforation &gt;15 % and ≤ 50 %$^4$</td>
<td>rotary</td>
<td>0,6$^3$</td>
</tr>
<tr>
<td>Lightweight aggregate concrete LAC, as per EN 1520:2011 / EN 771-3: 2011+A1:2015</td>
<td>$\geq 1,8$</td>
<td>4</td>
<td></td>
<td>hammer</td>
<td>0,9</td>
</tr>
<tr>
<td>Autoclaved aerated concrete AAC as per EN 1/4-2:2011+A1:2015</td>
<td>$\geq 0,4$</td>
<td>2</td>
<td></td>
<td>rotary</td>
<td>0,75</td>
</tr>
<tr>
<td>Vertically perforated clay bricks Hlz 250x380x235 mm as per EN 771-1:2011+A1:2015</td>
<td>$\geq 10,3$ mm</td>
<td></td>
<td>Outer web thickness ≥ 10,3 mm</td>
<td>rotary</td>
<td>0,75$^1$</td>
</tr>
</tbody>
</table>

1) The value applies only for outer web thickness ≥ 11 mm; otherwise the characteristic resistance shall be determined by job site pull-out tests.
2) The value applies only for outer web thickness ≥ 20 mm; otherwise the characteristic resistance shall be determined by job site pull-out tests.
3) The value applies only for outer web thickness ≥ 30 mm; otherwise the characteristic resistance shall be determined by job site pull-out tests.
4) Cross section reduced by perforation vertically to the resting area.

**Performance**

**Characteristic tension resistance**

Annex C 1
### Table C2: Point thermal transmittance according EOTA Technical Report TR 025:2016-05

<table>
<thead>
<tr>
<th>anchor type</th>
<th>insulation thickness $h_d$ [mm]</th>
<th>point thermal transmittance $\chi$ [W/K]</th>
</tr>
</thead>
<tbody>
<tr>
<td>ejotherm STR U mounted on the surface with EPS anchor cap</td>
<td>60 – 420</td>
<td>0.002</td>
</tr>
<tr>
<td>ejotherm STR U mounted countersunk with insulation cover</td>
<td>80 – 420</td>
<td>0.002</td>
</tr>
<tr>
<td>ejotherm STR U 2G mounted on the surface with EPS anchor cap</td>
<td>60 – 400</td>
<td>0.002</td>
</tr>
<tr>
<td>ejotherm STR U 2G mounted countersunk with insulation cover</td>
<td>80 – 400</td>
<td>0.001</td>
</tr>
</tbody>
</table>

### Table C3: Plate stiffness according EOTA Technical Report TR 026:2016-05

<table>
<thead>
<tr>
<th>anchor type</th>
<th>diameter of the anchor plate [mm]</th>
<th>load resistance of the anchor plate [kN]</th>
<th>plate stiffness [kN/mm]</th>
</tr>
</thead>
<tbody>
<tr>
<td>ejotherm STR U</td>
<td>60</td>
<td>2.08</td>
<td>0.60</td>
</tr>
<tr>
<td>ejotherm STR U 2G</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Ejotherm STR U, ejotherm STR U 2G and ejotherm SDK U

**Performance**

Point thermal transmittance, plate stiffness

Annex C 2
<table>
<thead>
<tr>
<th>Base material</th>
<th>Bulk density $\rho$ [kg/dm$^3$]</th>
<th>Minimum Compressive Strength $f_0$ [N/mm$^2$]</th>
<th>Tension Load $N$ [kN]</th>
<th>Displacements STR U $\Delta \delta_u$ [mm]</th>
<th>Displacements STR U 2G $\Delta \delta_u$ [mm]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concrete C16/20 – C50/60 (EN 206:2013+A1:2016)</td>
<td></td>
<td>$0,5$</td>
<td>$0,7$</td>
<td>$0,8$</td>
<td></td>
</tr>
<tr>
<td>concrete C16/20 – C50/60 (EN 206:2013+A1:2016)</td>
<td></td>
<td>$0,5$</td>
<td>$0,7$</td>
<td>$0,8$</td>
<td></td>
</tr>
<tr>
<td>thin concrete members (thin skins)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clay bricks, Mz (EN 771-1:2011+A1:2015)</td>
<td>$\geq 1,8$</td>
<td>$12$</td>
<td>$0,5$</td>
<td>$0,7$</td>
<td>$0,8$</td>
</tr>
<tr>
<td>Sand-lime solid bricks, KS (EN 771-2:2011+A1:2015)</td>
<td>$\geq 1,8$</td>
<td>$12$</td>
<td>$0,5$</td>
<td>$0,7$</td>
<td>$0,8$</td>
</tr>
<tr>
<td>Lightweight concrete solid blocks, V (EN 771-3:2011+A1:2015)</td>
<td>$\geq 0,9$</td>
<td>$4$</td>
<td>$0,2$</td>
<td>$0,7$</td>
<td>$0,8$</td>
</tr>
<tr>
<td>Vertically perforated clay bricks, Hlz (EN 771-1:2011+A1:2015)</td>
<td>$\geq 1,2$</td>
<td>$12$</td>
<td>$0,4$</td>
<td>$0,7$</td>
<td>$0,8$</td>
</tr>
<tr>
<td>Vertically perforated clay bricks, Hlz (EN 771-1:2011+A1:2015)</td>
<td>$\geq 0,8$</td>
<td>$12$</td>
<td>$0,36$</td>
<td>$0,7$</td>
<td>$0,8^{1)}$</td>
</tr>
<tr>
<td>Sand-lime perforated bricks, KSL (EN 771-2:2011+A1:2015)</td>
<td>$\geq 1,6$</td>
<td>$12$</td>
<td>$0,5$</td>
<td>$0,7$</td>
<td>$0,8^{1)}$</td>
</tr>
<tr>
<td>Lightweight concrete hollow blocks, Hbl (EN 771-3:2011+A1:2015)</td>
<td>$\geq 0,5$</td>
<td>$2$</td>
<td>$0,2$</td>
<td>$0,7$</td>
<td>$0,8$</td>
</tr>
<tr>
<td>Lightweight aggregate concrete, LAC (EN 1520:2011 / EN 771-3:2011 +A1:2015)</td>
<td>$\geq 1,8$</td>
<td>$4$</td>
<td>$0,3$</td>
<td>$0,7$</td>
<td>$0,8$</td>
</tr>
<tr>
<td>Autoclaved aerated concrete, AAC (EN 771-4:2011+A1:2015)</td>
<td>$\geq 0,4$</td>
<td>$2$</td>
<td>$0,25$</td>
<td>$0,7$</td>
<td>$0,8$</td>
</tr>
<tr>
<td>Vertically perforated clay bricks Hlz 250x380x235 mm (EN 771-1:2011+A1:2015)</td>
<td>$\geq 0,4$</td>
<td>$2$</td>
<td>$0,25$</td>
<td>$0,7$</td>
<td>$0,8$</td>
</tr>
</tbody>
</table>

1) drill hole by rotary drilling  
2) drill hole by hammer drilling

ejotherm STR U, ejotherm STR U 2G and ejotherm SDK U

Performance
Displacements

Annex C 3