National Technical Approval

National technical approval / general construction technique permission

Date: 16/05/2018
Reference: I 75-1.10.3-798/1

Number:
Z-10.3.798

Applicant:
TONALITY GmbH
In der Mark 100
56414 Weroth
Germany

Period of validity
from: 16 May 2018
to: 25 June 2020

Subject matter of this notification:
“TONALITY Classic 26” cladding tile
for use with back-ventilated cladding for external walls and ceilings

The subject of the regulations named above is herewith granted approval and is released for a national technical approval.

This notification consists of eleven pages and ten attachments of eighteen pages.
This national technical approval/ construction technique permission replaces national technical approval No. Z-33.1-1234 of 8 July 2015.
The subject matter was granted a national technical approval for the first time on 24th June 2010.

DIBt

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I GENERAL PROVISIONS

1 The usability and suitability of the subject matter of this regulation has been proven in the spirit of the Building Codes of the Landes (Landesbauordnung).

2 This notification does not replace the statutory approvals, permissions and certificates specified for construction projects.

3 This notification is issued irrespective of the rights of third parties, in particular of private intellectual property rights.

4 The user or the party applying the subject of this regulation must also be provided with copies of this notification, irrespective of further reaching regulations, regulations in the "Special Provisions". In addition the user or the party applying the subject matter of this approval must be informed that this notification must be present at the place of use or application. The authorities involved must likewise be provided with copies on request.

5 This notification may only be reproduced in full. Publishing extracts requires approval by the Deutsches Institut für Bautechnik. Text and drawings in advertising materials may not contradict this notification. Translations must include the reference "Translation of the German original edition not checked by the Deutsches Institut für Bautechnik".

6 This notification has been granted until further notice. This approval can be added to and changed at a later date, in particular if new technical discoveries require this.

7 This notification refers to the details given by the applicant and the documents presented. A change to these fundamentals is not covered by this notification and the Deutsches Institut für Bautechnik must be informed of this immediately.

8 The construction technique permission covered by this notification is valid at the same time as a national technical approval for this type of construction.
II SPECIAL PROVISIONS

1 The subject matter of the approval and the field of use and application

1.1 Subject Matter of the Approval

The national technical approval applies to the “TONALITY Classic 26” cladding tile profiled on the reverse and to support profiles made of aluminium:

- “Classic profile (CLS)”
- “Adaptive profile (ADS)”
- “Base clinch rail profile (BAS)” or
- “BAS-Flex-holder profile (BAS Flex)”

as well as to the joint profiles made of aluminium or neoprene which are a part of the system.

The cladding tiles as well as the holder and aluminium joint profiles are non-combustible. The neoprene joint profiles are normally flammable.

The subject matter of the general construction technique permission is the cladding system made up of the construction products named above including connection of same.

The cladding system is non-flammable.

The stability of the sub-structure including anchoring it to the construction is not included in the subject matter of this notification.

1.2 Field of Use and Application

The “TONALITY Classic 26” cladding tile may be used for back-ventilated external wall cladding according to DIN 18516. Depending on the holder profiles used, the panel fixing systems are classified as the “Classic system (CLS)”, the “Adaptive system (ADS)”, the “base clinch rail system (BAS)” or the “BAS-Flex-holding system (BAS Flex)”. The holder profiles are secured to the aluminium sub-structure’s support profiles.

The cladding tiles may also be used as ceiling cladding (overhead installation) when used with the “Adaptive system (ADS)” or the “base clinch rail system (BAS)”.

The permitted height of a building for using the façade cladding system is the result of a proof of stability, provided lower heights are not specified by the Federal State Fire Prevention Regulations which apply in each case.

Any thermal insulation which may be present must be fixed directly to the building, independent of the sub-structure.

2 Provisions for Building Products

2.1 Properties and Composition

2.1.1 Cladding tile

“TONALITY Classic 26” cladding tiles according to Annexes 3.1 to 3.7 must be tiles which are profiled on the reverse and must display the following characteristics.

- The dimensions of the cladding tile must correspond to the specifications of Table 1 and Annexes 3.1 to 3.7. The specifications regarding manufacturing tolerances have been deposited with the Deutsches Institut für Bautechnik.

1 DIN18516-1:2010-06 Cladding for external walls, ventilated at rear - Part 1: Requirements, principles of testing
Table 1: Dimensions of the Cladding Tile

<table>
<thead>
<tr>
<th>Nominal height</th>
<th>150</th>
<th>175</th>
<th>200</th>
<th>225</th>
<th>250</th>
<th>300</th>
<th>400</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum length (mm)</td>
<td>1200</td>
<td>1200</td>
<td>1600</td>
<td>1600</td>
<td>1600</td>
<td>1600</td>
<td>1600</td>
</tr>
</tbody>
</table>

- The mass per unit area must correspond to the specifications of Table 2.

Table 2: Mass per unit area of cladding tiles

<table>
<thead>
<tr>
<th>Nominal height</th>
<th>150</th>
<th>175</th>
<th>200</th>
<th>225</th>
<th>250</th>
<th>300</th>
<th>400</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mass per unit area [kg/m²]</td>
<td>33 ± 3</td>
<td>31 ± 3</td>
<td>34 ± 3</td>
<td>32 ± 3</td>
<td>36 ± 3</td>
<td>35 ± 3</td>
<td>36 ± 3</td>
</tr>
</tbody>
</table>

- In the test according to Annex 8 of the three-point bending test and following DIN EN 100, the values of the breaking loads according to Table 3 must be achieved (5% fractile value with a 75% confidence coefficient).

Table 3: Minimum requirements of the bending strength of the cladding tiles

<table>
<thead>
<tr>
<th>Nominal height</th>
<th>150</th>
<th>175</th>
<th>200</th>
<th>225</th>
<th>250</th>
<th>300</th>
<th>400</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breaking load [kN] on loading the front</td>
<td>1.54</td>
<td>1.79</td>
<td>2.10</td>
<td>2.43</td>
<td>2.62</td>
<td>3.10</td>
<td>4.82</td>
</tr>
<tr>
<td>Breaking load [kN] on loading the reverse</td>
<td>2.66</td>
<td>2.74</td>
<td>3.73</td>
<td>2.63</td>
<td>4.20</td>
<td>5.65</td>
<td>6.67</td>
</tr>
</tbody>
</table>

- The cladding tiles must meet the requirements of Performance Level 1 with regard to frost resistance in the test according to DIN EN 539-2².

2.1.2 Support profiles
The geometry of the cross-section must correspond to the specifications of Annexes 4 to 7. The length of the support profiles may not exceed a maximum of 2.80 m.

2.1.2.1 “Classic profile (CLS)"
“Classic profiles (CLS)” according to Annex 4 must be made of aluminium alloy EN AW 6060 according to DIN EN 755-2³, material condition T66.

2.1.2.2 “Adaptive profile (CLS)"
“Adaptive profiles (ADS)” according to Annexes 5.1 and 5.2 must be made from aluminium alloy EN AW 5083 H24 according to DIN EN 485-2⁴.

2.1.2.3 “Base clinch rail profile (BAS)” and Support Profile
“Base clinch rail profiles (BAS)” according to Annexes 6.1 and 6.2 must represent composite profiles in each case consisting of a “basic profile” made of aluminium alloy EN AW 5083 H24 according to DIN EN 485-2 and a joint profile made of aluminium alloy EN AW 5754 according to DIN EN 755-2.

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2 DIN EN 539-2:2013-08 Clay roofing tiles for discontinuous laying - Determination of physical characteristics - Part 2: Test for frost resistance
3 DIN EN 755-2:2016-10 Aluminium and aluminium alloys - Extruded rod/bar, tube and profiles - Part 2: Mechanical properties
4 DIN EN 485-2:2016-10 Aluminium and aluminium alloys - Sheet, strip and plate - Part 2: Mechanical properties
The base clinch rail profile must be connected with the joint profile in accordance with Annex 6.2 via 2 adjoining connecting points (hereinafter called “clinch points”). These interlocking connections must be effected using the Tog-L-Loc sheet metal clinching system in accordance with the details deposited with the DIBt. The clinch points (connections) must be arranged at a separation distance corresponding to the single nominal tile height.

In the event of shortening a profile, a structural connection of the two partial profiles must be completed using symmetrically arranged means of connections at a distance of 50mm from the end of the new profile. In this case self-drilling screws JT9-4-4.8 x 19 according to ETA 10/0200 made of stainless steel, material no. 1.4401 or the “TONALITY® 4.8 x 10 K9.5” blind rivet according to Annex 9 must be used.

Each base clinch rail profile must be mechanically fastened onto a vertical symmetrical carrier profile made of aluminium (reinforcement profile), with a profile flange at least 70 mm wide as a supporting surface, a minimum profile thickness of 2 mm and minimum moments of inertia of $I_y \geq 5.41 \text{ cm}^4$ and $I_z \geq 5.72 \text{ cm}^4$ (e.g. T-profile: 70/50/2 made of aluminium alloy EN AW 6060 T66 according to DIN EN 755-2).

The aforementioned self-drilling screws or blind rivets must be used as fasteners. In each case, two screws or blind rivets must be arranged next to one another per connection point. For tiles with nominal heights of 300 and 400, the vertical separation distance between connection points in each case must be the single nominal tile height, and for tiles with nominal heights of 150 to 250 must correspond either to the single nominal tile height or to twice the nominal tile height (Annex 6.2).

### 2.1.2.4 BAS Flex holder profiles (BAS Flex) and Reinforcement Profiles

BAS Flex holder profiles according to Annex 7 must be made of aluminium alloy EN AW 5083 H24 according to DIN EN 755-2.

Each BAS flex holder profile must be mechanically fastened onto a vertical symmetrical carrier profile made of aluminium (reinforcement profile), with a profile flange at least 70 mm wide as a supporting surface, a minimum profile thickness of 2 mm and a minimum moment of inertia of $I_y \geq 5.41 \text{ cm}^4$ and $I_z \geq 5.72 \text{ cm}^4$ (e.g. T-profile: 70 x 50 x 2 mm) made of aluminium alloy EN AW 6060 T66 according to DIN EN 755-2. Self-drilling screws according to Section 2.1.2.3 or blind rivets according to Annex 9 must be used as the means of fixing or fastening. In each case two screws or blind rivets per connection point must be sited next to one another.

### 2.1.3 Joint Profiles

Joint profiles for the “Classic system (CLS)” must be made of neoprene and they must fulfil the requirements of normally flammable building materials.

Joint profiles for the “Adaptive system (ALS)”, the “Base clinch rail system (BAS)” and the “BAS Flex holder (BAS Flex)” must be made of aluminium.

### 2.2 Manufacture, Packaging, Transportation, Storage and Marking

#### 2.2.1 Manufacture

The construction products according to Section 2.1 must be produced by the manufacturer.

#### 2.2.2 Packaging, Transportation, Storage

The construction products according to Section 2.1 must be stored according to manufacturer’s specifications and must be protected against damages.

#### 2.2.3 Marking

The building products according to section 2.1., their packaging, packing manifest or delivery note must be marked with a conformity mark (Ü mark) according to the regulation concerning the mark of conformity in the German Laender (federal states). Marking may only be carried out if the preconditions of Section 2.3 have been met.
2.3 Attestation of Conformity

2.3.1 Attestation of Conformity for Cladding Tiles

The attestation of conformity for “TONALITY Classic 26” cladding tiles according to Section 2.1.1. with the specifications of the national technical approval covered by this notification must be carried out for each production plant with a manufacturer’s declaration of conformity on the basis of internal production control and with a certificate of conformity from an acknowledged certification body as well as regular third party inspections by a recognised monitoring body according to the extent of the following regulations.

The manufacturer of the cladding tiles must appoint a certification body recognised for this to grant the certificate of conformity, and for the third party inspection, including the product test to be carried out as part of it. The manufacturer must indicate that a certificate of conformity has been issued by marking the construction product with the mark of conformity (the Ü mark) whilst providing information on the designated use.

The Deutsches Institut für Bautechnik must be given a copy of the certificate of conformity issued by the certification body issuing it.

The Deutsches Institut für Bautechnik must be given a copy of the initial inspection report for information.

2.3.2 Attestation of Conformity for the Holder Profiles, Joint Profiles and Blind Rivets

The attestation of conformity for the holder profiles according to Sections 2.1.2.1 to 2.1.2.4, for the joint profiles according to Section 2.1.3 and of the blind rivets according to section 2.1.2.3 with the regulations of the national technical approval covered by this notification must be effected for every production plant by means of a manufacturer’s declaration of conformity on the basis of internal factory production control and an initial inspection of the construction product by an acknowledged testing body for this – in this case an acknowledged monitoring body for this with independent testing competence. The manufacturer must indicate that a declaration of conformity has been issued by marking the construction product with the conformity symbol (Ü mark) whilst providing information on the intended purpose for use.

The Deutsches Institut für Bautechnik must be given a copy of the initial inspection report for information.

2.3.3 Internal Factory Production Control

Internal factory production controls must be set up and carried out in each production plant. Internal factory production control is understood to be continuous monitoring of production by the manufacturer, in order to ensure that the construction products he manufactures correspond to the regulations of the national technical approval covered by this notification.

Internal factory production control should at least include the measure mentioned in Annex 8. The results of the internal factory production control must be recorded and evaluated. The records must include the following details as a minimum:

- Description of the construction product or the starting material and its constituents
- The type of inspection or testing
- The date of manufacture and testing of the construction product or of the starting material or the constituents
- Results of the inspection and testing and, as far as applicable, comparison with the requirements
- Signature of the person responsible for the internal factory production control

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The records must be archived and kept for at least five years, and must be presented to the monitoring body appointed for the third party inspection. They must be presented to the Deutsches Institut für Bautechnik and to the highest building inspection authority with competence in this case, on request.

In the case of unsatisfactory test results, the manufacturer must immediately initiate the measures required to resolve the fault. Construction products which do not meet the requirements must be handled in such a way that confusing them with products which conform is ruled out. The respective test must be repeated immediately – as far as is technically possible and as far as this is necessary to prove that the fault has been resolved – after the fault has been resolved.

2.3.4 Third Party inspection

The internal factory production control must be inspected in each production plant by a third party inspection body regularly, however at least twice a year.

An initial inspection of the “TONALITY Classic 26” cladding tile must be carried out in the context of the third party inspection. Samples may also be taken for random testing. Sampling and testing are also considered to be the responsibility of the acknowledged monitoring body in each case.
The cladding tiles must be tested according to Annex 8.
The results of certification and third party inspections must be kept for a period of at least five years. On request, they must be presented to the Deutsches Institut für Bautechnik and to the highest building inspection authority with competence in each case.

2.3.5 Initial inspection by an acknowledged Inspection body

The dimensions and material characteristics must be tested according to Sections 2.1.2 and 2.1.3 as well as Annexes 4 to 9 in the context of the initial inspection of the support profiles, joint profiles and blind rivets.

3 Provisions for design, dimensioning and Implementation

3.1 Design and Dimensioning

3.1.1 General

The “TONALITY Classic 26” cladding system may only be composed of construction products according to Sections 2.1.1 to 2.1.3. The build-up of the façade cladding system must be taken from the overviews of Annexes 1 and 2. Butt joints of cladding tiles at profile joints must be at least 6 mm. Neoprene or aluminium joint profiles must be placed behind the vertical joints. Joints between the support profiles may not be spanned over and covered by cladding tiles. The deflection limit of support profiles and sub-structure profiles according to Section 3.1.3 must be observed. The maximum bearing distances for the façade cladding tiles is dependent on the wind loads (positive or negative wind pressure), for the support profiles (Adaptive system “ADS”, Classic system “CLS”, Base clinch rail system “BAS” or BAS flex holder profiles “BAS Flex”) and nominal tile heights (150 to 400) are indicated in Tables 4 to 7. The permitted bearing distance in each case is the smaller bearing distance from Tables 4 to 7 (according to the variation of implementation). Incident wind loads must be taken from the Technical Building Regulations already introduced by building supervisory authorities.
In the event of overhead installation (ceiling cladding), the incident wind loads must be corrected by the dead weight load of cladding tiles acting in the direction of the wind. Blind rivets may not be used when using "BAS" support profiles for ceiling cladding. Using "BAS Flex" holders is not permitted for overhead ceiling cladding.

3.1.2 Proof of Stability

Provided nothing to the contrary is determined in the following sections, the proofs required must be demonstrated on the basis of the Technical Building Regulations. The proof of stability for “TONALITY Classic 26” cladding tiles according to Section 2.2.1 and installation of same as single span supports by hanging them onto the aluminium support profiles according to Section 2.1.2 must be carried out following the provisions of Section 3.1 for each specific construction project. The maximum bearing distances for cladding tiles for design values of wind resistance for parts of the building are given in Tables 4 to 7. Linear interpolation between two adjacent values in the tables is permitted.

Table 4: Maximum bearing distances of cladding tiles for design values of resistance for part of the building to positive wind pressure loading for the systems “ADS”, “CLS”, “BAS” and “BAS-Flex”:

<table>
<thead>
<tr>
<th>Positive wind load pressure* [kN/m²]</th>
<th>+0.75</th>
<th>+1.20</th>
<th>+1.50</th>
<th>+2.25</th>
<th>+3.00</th>
<th>+3.75</th>
<th>+4.50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum bearing distances [m]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>150 Tile</td>
<td>1.20</td>
<td>1.20</td>
<td>1.20</td>
<td>1.20</td>
<td>1.10</td>
<td>0.98</td>
<td>0.89</td>
</tr>
<tr>
<td>175 Tile</td>
<td>1.20</td>
<td>1.20</td>
<td>1.20</td>
<td>1.20</td>
<td>1.10</td>
<td>0.98</td>
<td>0.89</td>
</tr>
<tr>
<td>200 Tile</td>
<td>1.60</td>
<td>1.60</td>
<td>1.60</td>
<td>1.28</td>
<td>1.10</td>
<td>0.99</td>
<td>0.90</td>
</tr>
<tr>
<td>225 Tile</td>
<td>1.60</td>
<td>1.60</td>
<td>1.60</td>
<td>1.30</td>
<td>1.12</td>
<td>1.00</td>
<td>0.92</td>
</tr>
<tr>
<td>250 Tile</td>
<td>1.60</td>
<td>1.60</td>
<td>1.60</td>
<td>1.27</td>
<td>1.10</td>
<td>0.99</td>
<td>0.90</td>
</tr>
<tr>
<td>300 Tile</td>
<td>1.60</td>
<td>1.60</td>
<td>1.60</td>
<td>1.26</td>
<td>1.10</td>
<td>0.98</td>
<td>0.89</td>
</tr>
<tr>
<td>400 Tile</td>
<td>1.60</td>
<td>1.60</td>
<td>1.60</td>
<td>1.37</td>
<td>1.18</td>
<td>1.06</td>
<td>0.97</td>
</tr>
</tbody>
</table>

*The partial stability coefficient $\gamma_M$ has already been taken into consideration.

Table 5: Maximum bearing distances of the cladding tiles for design values of resistance for part of the building to negative wind pressure loading for the systems “ADS”, “CLS”, “BAS” and “BAS Flex”:

<table>
<thead>
<tr>
<th>Negative wind load pressure* [kN/m²]</th>
<th>-0.75</th>
<th>-1.20</th>
<th>-1.50</th>
<th>-2.25</th>
<th>-3.00</th>
<th>-3.75</th>
<th>-4.50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum bearing distances [m]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>150 Tile</td>
<td>1.20</td>
<td>1.20</td>
<td>1.20</td>
<td>1.20</td>
<td>1.20</td>
<td>1.01</td>
<td>0.84</td>
</tr>
<tr>
<td>175 Tile</td>
<td>1.20</td>
<td>1.20</td>
<td>1.20</td>
<td>1.20</td>
<td>1.20</td>
<td>1.20</td>
<td>1.10</td>
</tr>
<tr>
<td>200 Tile</td>
<td>1.60</td>
<td>1.60</td>
<td>1.60</td>
<td>1.60</td>
<td>1.35</td>
<td>1.08</td>
<td>0.90</td>
</tr>
<tr>
<td>225 Tile</td>
<td>1.60</td>
<td>1.60</td>
<td>1.60</td>
<td>1.35</td>
<td>1.11</td>
<td>0.89</td>
<td>0.74</td>
</tr>
<tr>
<td>250 Tile</td>
<td>1.60</td>
<td>1.60</td>
<td>1.60</td>
<td>1.20</td>
<td>0.90</td>
<td>0.72</td>
<td>0.60</td>
</tr>
<tr>
<td>300 Tile</td>
<td>1.60</td>
<td>1.60</td>
<td>1.60</td>
<td>1.27</td>
<td>0.95</td>
<td>0.76</td>
<td>0.63</td>
</tr>
<tr>
<td>400 Tile</td>
<td>1.60</td>
<td>1.60</td>
<td>1.28</td>
<td>0.85</td>
<td>0.64</td>
<td>0.51</td>
<td>0.43</td>
</tr>
</tbody>
</table>

*The partial stability coefficient $\gamma_M$ has already been taken into consideration.
Table 6: Maximum bearing distances of cladding tiles for design values of resistance for part of the building to negative wind pressure loading for the “BAS” system with screw connections:

<table>
<thead>
<tr>
<th>Negative wind load pressure* [kN/m²]</th>
<th>-0.75</th>
<th>-1.20</th>
<th>-1.5</th>
<th>-2.25</th>
<th>-3.00</th>
<th>-3.75</th>
<th>-4.50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum bearing distances [m]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>150 Tile a) or b)</td>
<td>1.20</td>
<td>1.20</td>
<td>1.20</td>
<td>1.16</td>
<td>0.87</td>
<td>0.69</td>
<td>0.58</td>
</tr>
<tr>
<td>175 Tile a) or b)</td>
<td>1.20</td>
<td>1.20</td>
<td>1.20</td>
<td>0.97</td>
<td>0.73</td>
<td>0.58</td>
<td>0.49</td>
</tr>
<tr>
<td>200 Tile</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a)</td>
<td>1.60</td>
<td>1.60</td>
<td>1.60</td>
<td>1.60</td>
<td>1.30</td>
<td>1.04</td>
<td>0.87</td>
</tr>
<tr>
<td>b)</td>
<td>1.60</td>
<td>1.60</td>
<td>1.20</td>
<td>0.80</td>
<td>0.60</td>
<td>0.48</td>
<td>0.40</td>
</tr>
<tr>
<td>225 Tile</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a)</td>
<td>1.60</td>
<td>1.60</td>
<td>1.60</td>
<td>1.35</td>
<td>1.11</td>
<td>0.89</td>
<td>0.74</td>
</tr>
<tr>
<td>b)</td>
<td>1.60</td>
<td>1.36</td>
<td>1.02</td>
<td>0.68</td>
<td>0.51</td>
<td>0.41</td>
<td>0.34</td>
</tr>
<tr>
<td>250 Tile</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a)</td>
<td>1.60</td>
<td>1.60</td>
<td>1.60</td>
<td>1.20</td>
<td>0.90</td>
<td>0.72</td>
<td>0.60</td>
</tr>
<tr>
<td>b)</td>
<td>1.60</td>
<td>1.10</td>
<td>0.83</td>
<td>0.55</td>
<td>0.41</td>
<td>0.33</td>
<td>0.28</td>
</tr>
<tr>
<td>300 Tile a)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b)</td>
<td>1.60</td>
<td>1.60</td>
<td>1.60</td>
<td>1.11</td>
<td>0.83</td>
<td>0.67</td>
<td>0.56</td>
</tr>
<tr>
<td>400 Tile a)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* The partial stability coefficient $\gamma_M$ has already been taken into consideration.

a) Separation distance of the rivet connections = 1 x nominal tile height
b) Separation distance of the rivet connections = 2 x nominal tile height

Table 7: Maximum bearing distances of the cladding tiles for the design values of resistance for part of the building to negative wind pressure loading for the “BAS” system with rivet connections:

<table>
<thead>
<tr>
<th>Negative wind load pressure* [kN/m²]</th>
<th>-0.75</th>
<th>-1.20</th>
<th>-1.50</th>
<th>-2.25</th>
<th>-3.00</th>
<th>-3.75</th>
<th>-4.50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum bearing distances [m]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>150 Tile a)</td>
<td>1.20</td>
<td>1.20</td>
<td>1.20</td>
<td>1.20</td>
<td>1.15</td>
<td>0.92</td>
<td>0.77</td>
</tr>
<tr>
<td>175 Tile a)</td>
<td>1.20</td>
<td>1.20</td>
<td>1.20</td>
<td>1.12</td>
<td>0.84</td>
<td>0.67</td>
<td>0.56</td>
</tr>
<tr>
<td>200 Tile</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a)</td>
<td>1.60</td>
<td>1.60</td>
<td>1.60</td>
<td>1.60</td>
<td>1.35</td>
<td>1.08</td>
<td>0.90</td>
</tr>
<tr>
<td>b)</td>
<td>1.60</td>
<td>1.60</td>
<td>1.29</td>
<td>0.86</td>
<td>0.65</td>
<td>0.52</td>
<td>0.43</td>
</tr>
<tr>
<td>225 Tile</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a)</td>
<td>1.60</td>
<td>1.60</td>
<td>1.60</td>
<td>1.35</td>
<td>1.11</td>
<td>0.89</td>
<td>0.74</td>
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<td>b)</td>
<td>1.60</td>
<td>1.36</td>
<td>1.02</td>
<td>0.68</td>
<td>0.51</td>
<td>0.41</td>
<td>0.34</td>
</tr>
<tr>
<td>250 Tile</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a)</td>
<td>1.60</td>
<td>1.60</td>
<td>1.60</td>
<td>1.20</td>
<td>0.90</td>
<td>0.72</td>
<td>0.60</td>
</tr>
<tr>
<td>b)</td>
<td>1.60</td>
<td>1.10</td>
<td>0.83</td>
<td>0.55</td>
<td>0.41</td>
<td>0.33</td>
<td>0.28</td>
</tr>
<tr>
<td>300 Tile a)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>b)</td>
<td>1.60</td>
<td>1.60</td>
<td>1.60</td>
<td>1.27</td>
<td>0.95</td>
<td>0.76</td>
<td>0.63</td>
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<tr>
<td>400 Tile a)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* The partial stability coefficient $\gamma_M$ has already been taken into consideration.

a) Separation distance of the rivet connections = 1 x nominal tile height
b) Separation distance of the rivet connections = 2 x nominal tile height
The stability of the holder profiles, the support profiles of the sub-structure and their anchoring onto the building must be proven specifically for the building according to Technical Building Regulations. Deflection and deformation bending of the sub-structure and the support profiles must be limited to L/200 (L = bearing distance of the profiles). The deflection and deformation of projecting components of sub-structures and support profiles must be limited to L/150.

The joint profiles for ADS and CLS profile systems do not have any load-bearing function.

The proof of stability for the base rail clinch profile (BAS basic profile + BAS joint profile) as well as for the means of connection between the base clinch rail profile and reinforcement profile has been proven whilst keeping to the specifications of Section 2.1.2.3 as well as according to Annexes 6.1 and 6.2 of the approval procedure. The proof of stability of the BAS Flex holder profile for the “base clinch rail system (BAS Flex)” as well as its connection by means of self-drilling screws or blind rivets according to Section 2.1.2.3 to the reinforcement profile has been proven whilst following the details according to Section 2.1.2.4 as well as according to Annex 7 of the approval procedure.

Different means of connection other than self-drilling screws or blind rivets named above may be used, if we are dealing with regular, controlled products and the proof of static stability has been proven specifically for the construction project. DIN 18516-1 must be followed with regards to corrosion protection.

Composite effects with the base clinch rail profile (BAS) or with the BAS Flex holders (BAS Flex) may not be used for demonstrating the proof of stability of the carrier profile (reinforcement profile) according to Sections 2.1.2.3 and 2.1.2.4.

When arranging layouts with several support profiles above one another (maximum length of each profile 2.80 m, see Section 2.1.2), the separation distance between fixed points for two successive support profiles may not exceed a maximum of 2.80 m.

### 3.1.3 Fire Protection

The “TONALITY Classic 26” cladding system is non-combustible. The proof of non-combustibility applies, if any thermal insulation present is made of non-combustible mineral fibre materials according to DIN EN 13162; otherwise the cladding system may only be used wherever building inspection authorities have set the requirement as normally flammable.

The Technical Building Regulations for DIN 18516-1 must be followed with regard to structural fire protection measures.

### 3.1.4 Thermal Insulation and Protection against Moisture Subject to Climate Conditions

DIN 4108-2\(^7\) applies for the proof of thermal insulation properties. The air gap (back ventilation space) and the cladding tiles may not be taken into consideration when calculating the thermal insulation resistance (R value) according to DIN EN ISO 6946\(^8\) for external wall constructions. The design value of thermal conductivity corresponds to DIN 4108-4\(^9\), Table 2 for the proof of thermal insulation properties for the insulation material used.

---

5. DIN EN 131 62:2015-04
6. See [www.dibt.de](http://www.dibt.de) > Section on “Areas of Business” under Construction Products Lists / Technical Building Rules
7. DIN 4108-2:2013-02
8. DIN EN ISO 6946:2018-03
9. DIN 4108-4:2017-03
Thermal bridging which occurs due to the sub-structure and its anchoring, because the thermal insulation layer has been penetrated or its thickness is reduced must be taken into consideration. DIN 4108-3\textsuperscript{10} applies for protection against moisture subject to climate conditions.

### 3.1.5 Sound Insulation

DIN 4109-1\textsuperscript{11} applies for the proof of sound insulation (protection against external noise).

### 3.2 Execution

#### 3.2.1 Requirements of the Applicant and Company Executing the Installation

- **Applicant**
  The applicant is obliged to inform all persons entrusted with the design and installation of façade cladding systems of all the special provisions in this notification and about all the further individual details necessary for flawless execution of this type of construction.

- **Contracting Company**
  Façade cladding systems according to Section 3.1 may only be installed by specialist operatives, who have been appropriately trained and whose suitability for performing the work has been certified by the applicant. The contracting company completing the work must confirm conformance of the type of construction with this notification in accordance with Annex 10, and this confirmation must be handed over to the client or owner of the building.

#### 3.2.2 Checking Construction Products on Receipt

Marking and labelling of construction products according to Sections 2.1.1 to 2.1.3 must be checked on receipt on the building site in accordance with Section 2.2.3.

#### 3.2.3 Installation

Construction products according to Sections 2.1 must be used for executing the construction of the facade system. The sub-structure must be installed free from technical constraints. The specifications from the proofs of stability (see Section 3.1) must be observed.

Each cladding tile must be installed onto the support profiles through positive interlocking in accordance with the indications of Annexes 1 to 7 as a single span support.

Joint profiles according to Section 2.1.3 must be placed behind vertical joints between the cladding tiles as protection against driving rain and to secure their position structurally.

If the tiles are installed overhead as ceiling cladding, which may only be carried out in connection with the ADS or BAS support profile system, the cladding tiles must be fixed in place mechanically to secure against sliding off the holder profiles.

Thermal insulation must be fixed directly to the structure of the building independent of the sub-structure. Damaged cladding tiles may not be installed.

Renée Kamanzi-Fechner
Head of Department

Notarised

\textsuperscript{10} DIN 4108-3:2014:11 Thermal protection and energy economy in buildings - Part 3: Protection against moisture subject to climate conditions - Requirements and directions for design and construction

\textsuperscript{11} DIN 4109-1:2016-07 Sound insulation in buildings - Part 1: Minimum requirements
“TONALITY®” cladding tile for use with back-ventilated external wall cladding and ceiling cladding

Overview (Cladding system)

Annex 1
National Technical Approval
General Construction Technique Permission
No. Z-10.3-798 of 16 May 2018

Classic system (CLS)
Example of horizontal section through façade structure

Adaptive system (ADS)
Example of horizontal section through façade structure

Legend/key

Unterkonstruktion nach statischer Erfordernis
Sub-structure according to static engineering requirements

Classic-Halteprofil (CLS)
Classic support profile (CLS)

uneingeschränkte Hinterlüftung
unrestricted back-ventilation

Adaptiv-Halteprofil (ADS)
Adaptive support profile (ADS)

Fassadenziegel
Cladding tile

Fugenprofil
Joint profile

Systemtiefe
System thickness

Tiefe abhängig von Dämmungsdicke
Thickness dependent on thickness of insulation

Achse
Axis

Base clinch rail system (BAS)
Example of horizontal section through façade structure

BAS Flex system
Example of horizontal section through façade structure

All measurements in mm

“TONALITY Classic 26” cladding tile for use with back-ventilated external wall cladding and ceiling cladding

Annex 2
Legend/key

- Höhenraster: Tile height grid
- obere Einhängepunkte: upper hanging points
- unterer Einhängepunkt: lower hanging point
- Geometrie Ziegelstoß: geometry of tile joint
- Geometrie am Profilstoß: geometry of profile joint
- Halteprofil z.B. ADS: Support profile e.g. ADS
- Ziegel: Tile
- Gleitpunkt: Sliding point
- Festpunkt: Fixed point

All measurements in mm

“TONALITY Classic 26” cladding tile for use with back-ventilated external wall cladding and ceiling cladding

Cladding tile 150

Annex 3.1
Legend/key

<table>
<thead>
<tr>
<th>German</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>Höhenraster</td>
<td>Tile height grid</td>
</tr>
<tr>
<td>obere Einhängepunkte</td>
<td>upper hanging points</td>
</tr>
<tr>
<td>unterer Einhängepunkt</td>
<td>lower hanging point</td>
</tr>
<tr>
<td>Gemoetrie Ziegelstoß</td>
<td>geometry of tile joint</td>
</tr>
<tr>
<td>Geometrie am Profilstoß</td>
<td>geometry of profile joint</td>
</tr>
<tr>
<td>Halteprofil z.B. ADS</td>
<td>Support profile e.g. ADS</td>
</tr>
<tr>
<td>Ziegel</td>
<td>Tile</td>
</tr>
<tr>
<td>Gleitpunkt</td>
<td>Sliding point</td>
</tr>
<tr>
<td>Festpunkt</td>
<td>Fixed point</td>
</tr>
</tbody>
</table>

*All measurements in mm*

“TONALITY Classic 26” cladding tile for use with back-ventilated external wall cladding and ceiling cladding

Cladding tile 175
Legend/key

- Höhenraster: Tile height grid
- obere Einhängepunkte: Upper hanging points
- unterer Einhängepunkt: Lower hanging points
- Geometrie Ziegelstoß: Geometry of tile joint
- Geometrie am Profilstoß: Geometry of profile joint
- Halteprofil z.B. ADS: Support profile e.g. ADS
- Ziegel: Tile
- Gleitpunkt: Sliding point
- Festpunkt: Fixed point

All measurements in mm

“TONALITY Classic 26” cladding tile for use with back-ventilated external wall cladding and ceiling cladding

Annex 3.3

Cladding tile 200
**Legend/key**

<table>
<thead>
<tr>
<th>German Term</th>
<th>English Translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Höhenraster</td>
<td>Tile height grid</td>
</tr>
<tr>
<td>obere Einhängepunkte</td>
<td>upper hanging points</td>
</tr>
<tr>
<td>unterer Einhängepunkt</td>
<td>lower hanging points</td>
</tr>
<tr>
<td>Gemoetrie Ziegelstoß</td>
<td>geometry of tile joint</td>
</tr>
<tr>
<td>Geometrie am Profilstoß</td>
<td>geometry of profile joint</td>
</tr>
<tr>
<td>Halteprofil z.B. ADS</td>
<td>Support profile e.g. ADS</td>
</tr>
<tr>
<td>Ziegel</td>
<td>Tile</td>
</tr>
<tr>
<td>Gleitpunkt</td>
<td>Sliding point</td>
</tr>
<tr>
<td>Festpunkt</td>
<td>Fixed point</td>
</tr>
</tbody>
</table>

*All measurements in mm*

“TONALITY Classic 26” cladding tile for use with back-ventilated external wall cladding and ceiling cladding

<table>
<thead>
<tr>
<th>Cladding tile 225</th>
<th>Annex 3.4</th>
</tr>
</thead>
</table>

Z23069.18 1.10.3-798/1
Legend/key

<table>
<thead>
<tr>
<th>German</th>
<th>English</th>
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</thead>
<tbody>
<tr>
<td>Höhenraster</td>
<td>Tile height grid</td>
</tr>
<tr>
<td>obere</td>
<td>upper hanging points</td>
</tr>
<tr>
<td>Einhängepunkt</td>
<td>lower hanging points</td>
</tr>
<tr>
<td>unterer</td>
<td>geometry of tile joint</td>
</tr>
<tr>
<td>Einhängepunkt</td>
<td>geometry of profile joint</td>
</tr>
<tr>
<td>Gemoetrie</td>
<td>Support profile e.g. ADS</td>
</tr>
<tr>
<td>Ziegelstoß</td>
<td>Tile</td>
</tr>
<tr>
<td>Geometrie am</td>
<td>Sliding point</td>
</tr>
<tr>
<td>Profilstoß</td>
<td>Fixed point</td>
</tr>
<tr>
<td>z.B. ADS</td>
<td></td>
</tr>
</tbody>
</table>

All measurements in mm

“TONALITY Classic 26” cladding tile for use with back-ventilated external wall cladding and ceiling cladding

Cladding tile 250

Annex 3.5
Legend/key

Höhenraster | Tile height grid
obere Einhängepunkte | upper hanging points
unterer Einhängepunkt | lower hanging points
Gemoetrie Ziegelstoß | geometry of tile joint
Geometrie am Profilstoß | geometry of profile joint
Halteprofil z.B. ADS | Support profile e.g. ADS
Ziegel | Tile
Gleitpunkt | Sliding point
Festpunkt | Fixed point

All measurements in mm

“TONALITY Classic 26” cladding tile for use with back-ventilated external wall cladding and ceiling cladding

Annex 3.6

Cladding tile 300

Z23069.18
Legend/key

<table>
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</thead>
<tbody>
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<td>Höhenraster</td>
<td>Tile height grid</td>
</tr>
<tr>
<td>obere Einhängepunkte</td>
<td>upper hanging points</td>
</tr>
<tr>
<td>unterer Einhängepunkt</td>
<td>lower hanging points</td>
</tr>
<tr>
<td>Gemoetrie Ziegelstoß</td>
<td>geometry of tile joint</td>
</tr>
<tr>
<td>Geometrie am Profilstoß</td>
<td>geometry of profile joint</td>
</tr>
<tr>
<td>Halteprofil z.B. ADS</td>
<td>Support profile e.g. ADS</td>
</tr>
<tr>
<td>Ziegel</td>
<td>Tile</td>
</tr>
<tr>
<td>Gleitpunkt</td>
<td>Sliding point</td>
</tr>
<tr>
<td>Festpunkt</td>
<td>Fixed point</td>
</tr>
</tbody>
</table>

All measurements in mm

“TONALITY Classic 26” cladding tile for use with back-ventilated external wall cladding and ceiling cladding

Annex 3.7

Cladding tile 400

Z23069.18

1.10.3-798/1
**Geometry of the suspension hooks on the Classic Profile (CLS)**

Profile length according to Section 3.1.1

Separation distance of suspension hooks ( = distance X)

200 mm for fixing tiles of height 400 mm

150 mm for fixing tiles of height 300 mm

150 / 100 mm (alternating) for fixing tiles of height 250 mm

150 / 75 mm (alternating) for fixing tiles of height 225 mm

100 mm for fixing tiles of height 200 mm

100 / 75 mm (alternating) for fixing tiles of height 175 mm

75 mm for fixing tiles of height 150 mm

*All measurements in mm*

---

“TONALITY Classic 26” cladding tile for use with back-ventilated external wall cladding and ceiling cladding

Annex 4
Adaptive Profile Cross-Section (ADS) – different profile thicknesses

**Key/ Legend**

- Systemtiefe: System thickness
- mit geschlossener Fuge: with closed joint
- geschlossenes Fugenprofil: closed joint profile
- offenes Fugenprofil: open joint profile

**Fugenprofilvarianten für Adaptivprofil (Querschnitt)**

- Feinfugenprofil: fine joint profile
- bündig mit Klinkungen: flush with notchings
- Endprofil für Abschluss: end profile for termination
- Profilquerschnitt: Profile cross-section

*All measurements in mm*

"TONALITY Classic 26" cladding tile for use with back-ventilated external wall cladding and ceiling cladding

Adaptive profile (ADS) cross-sections
All measurements in mm

"TONALITY Classic 26" cladding tile for use with back-ventilated external wall cladding and ceiling cladding

Annex 5.2

Adaptive profile (ADS) side view
Cross-section of base clinch rail profile (BAS)

Support profile
e. g. T 70/50/2
in accordance with Section 2.2.2.3

Screws/fixings
in accordance with Section 2.2.2.3

Base bottom profile
t = 2mm

Clinch connection
(see Annex 6.2)

Joint profile t = 0.8mm
(coated on both sides)

All measurements in mm

“TONALITY Classic 26” cladding tile for use with back-ventilated external wall cladding and ceiling cladding

Base clinch rail profile (BAS) cross-section
Isometric view (lying flat)
shortened image of the product

Side view (lying flat)
shortened image of the product: repeat arrangement of Sections B, C

View from above (lying flat)
shortened image of the product: repeat arrangement of Sections F, L

Profile length according to Section 3.1.1

<table>
<thead>
<tr>
<th>BAS System</th>
<th>Grid (tile height)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimension, tolerance + / - 0.5 mm</td>
<td></td>
</tr>
<tr>
<td>Overall length of the base clinch rail profile</td>
<td></td>
</tr>
</tbody>
</table>

| Suspensions (fixings for the tile to the base clinch rail profile) |
|------------------|------------------|
| Edge separation of suspensions |
| A 55 55 94 55 64 114 114 |
| D 14 14 30 14 30 30 80 |
| Vertical separation between suspensions |
| B 75 100 100 150 150 200 |
| C 75 75 100 75 100 150 200 |

<table>
<thead>
<tr>
<th>Connections between the base clinch rail profiles and sub-structure carrier profiles</th>
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</thead>
<tbody>
<tr>
<td>Edge separation</td>
</tr>
<tr>
<td>Separation distance between the fixing points</td>
</tr>
<tr>
<td>E 37 37 46 37 46 96 96</td>
</tr>
<tr>
<td>H 32 32 48 32 48 98</td>
</tr>
<tr>
<td>F 150* 175* 200* 225* 250* 300 400</td>
</tr>
<tr>
<td>G 75 100 100 150 150 200 200</td>
</tr>
<tr>
<td>Separation distance between clinch points (may vary by +10 mm depending on the manufacturer)</td>
</tr>
<tr>
<td>Vertical number of clinch points</td>
</tr>
<tr>
<td>I 80 66 70 70 40 40</td>
</tr>
<tr>
<td>K 177 202 226 242 276 176-230 176+30</td>
</tr>
<tr>
<td>L 150 175 200 225 250 300 400</td>
</tr>
<tr>
<td>M 152 242 366 267 118 118 216</td>
</tr>
<tr>
<td>N 15 15 30 73 30 30 30</td>
</tr>
<tr>
<td>d=0 18 16 14 12 12 11 15</td>
</tr>
</tbody>
</table>

*Connection is carried out in accordance with Section 2.2.2.3 for tile grid height 150-200 mm at a separation distance of 2xF/1xF from grid height 300

“TONALITY Classic 26” cladding tile for use with back-ventilated external wall cladding and ceiling cladding

Base clinch rail profile (BAS) : Separation distances of fixings 223069.18

Annex 6.2

1.10.3-798/1
View of the BAS Flex Holder in 3 Planes

Cross-section of the BAS-Flex- joint profile

Cross-section of the Base clinch rail profile in installed state

Support profile
e. g. T 70/50/2
in accordance with Section 2.2.2.4

Fixing / fastener
in accordance with Section 2.2.2.4

BAS-Flex-holder profile
(t = 2 mm)

Flex-joint profile, t = 0.8mm
(coated on both sides)

All measurements in mm

“TONALITY Classic 26” cladding tile for use with back-ventilated external wall cladding and ceiling cladding

Annex 7

BAS-Flex-Holder
Cross-section
### Building Product

**"TONALITY Classic 26" cladding tile**

<table>
<thead>
<tr>
<th>Type of Investigation</th>
<th>Test Standard/Test procedure</th>
<th>Requirement</th>
<th>Frequency</th>
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<tbody>
<tr>
<td>Evenness</td>
<td>DIN EN 1024</td>
<td>0.7 % max.</td>
<td>At least once every working day</td>
</tr>
<tr>
<td>Tile length</td>
<td>DIN EN 1024</td>
<td>See Section 2.1.1</td>
<td></td>
</tr>
<tr>
<td>Tile width (tile height)</td>
<td>DIN EN 1024</td>
<td>See Section 2.1.1</td>
<td></td>
</tr>
<tr>
<td>Tile thickness</td>
<td></td>
<td>See Annexes 3 to 8</td>
<td></td>
</tr>
<tr>
<td>Profiles on the reverse (suspensions)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mass per unit area (dry)</td>
<td></td>
<td>See Section 2.1.1</td>
<td></td>
</tr>
<tr>
<td>Flexural strength</td>
<td>Three point bending test *</td>
<td>See below*</td>
<td>See below*</td>
</tr>
<tr>
<td>Frost resistance</td>
<td>DIN EN 539-2</td>
<td>DIN EN 1304 Performance Level 1</td>
<td>every six months</td>
</tr>
</tbody>
</table>

**Support profile**  
Joint profiles  
Blind rivet

**Dimensions**  
**Characteristic Material values**

See Section 2.1.2 and 2.1.3 as well as Annexes 9 to 14 and Annex 16  
Every delivery or Factory certificate 2.2 according to DIN EN 10204

---

*Three Point bending test*  
The flexural strength of the cladding tile must be determined using a three-point bending test.  
At least 10 samples per batch must be tested with a test speed of 5-10 mm/M.  
The sample dimensions L x B must be 391 mm x tile height; and the bearing span must be 350 mm.  
The requirements according to Section 2.1.1 regarding breaking loads must be followed.
Sleeve material: Al Mg 3 (EN AW-5754)
Tension pin material: 1.4541 (DIN EN 10088)
Surface: bright, shiny
Shaft length L: 10 mm
Minimum tensile breaking load: 1950 N
Minimum shear breaking load: 1480 N
Bracket length: 4.5 – 6.5 mm

“TONALITY Classic 26” cladding tile for use with back-ventilated external wall cladding and ceiling cladding

Blind rivet
4.8 x 10 K9.5
National Technical Approval
General Construction Technique Permission
No. Z-10.3-798 of 16 May 2018

This confirmation must be completed by the specialist contractors of the company carrying out the installation on the building site following completion of the cladding façade system and must be handed to the client (the owner of the building).

Address of the building:
Street/ no.: 
Post code: 

### Description of the Cladding System worked on according to the national technical approval / general to General Construction Technique Permission No. Z-10.3-798

#### Cladding tiles used:
- Nominal height 150 mm
- Nominal height 175 mm
- Nominal height 200 mm
- Nominal height 225 mm
- Nominal height 250 mm
- Nominal height 300 mm
- Nominal height 400 mm

#### Holder profiles used:
- Classic profile (CLS)
- Adaptive profile (ADS)
- Base clinch rail profile (BAS)
- BAS-Flex-holder profile (BAS-Flex)

#### Joint profiles used:
- Neoprene joint profile for the Classic system CLS
- Aluminium joint profile for the Adaptive system (ADS)
- Neoprene joint profile for the base clinch rail system (BAS)
- Neoprene joint profile for the for the BAS-Flex-holder system (BAS-Flex)

#### Behaviour of the cladding system under fire loading:
See Section 3.1.3 of the notification named above

- Non-combustible cladding system
- Normally flammable cladding system

#### Address of the company completing the installation

Company: 
Street: 
Town / Post code: 
Country: 

We herewith declare that the cladding system described above has been installed in accordance with the regulations of the notification above and the manufacturer’s processing and handling instructions.

Date/Signature for the specialist installation company: 

"TONALITY Classic 26" cladding tile for use with back-ventilated external wall cladding and ceiling cladding

Confirmation by the company completing the installation for the building owner or client

Translation by Charles Rose, technical translator with many years’ experience as a technical German translator, for static engineers, federations and universities and contractors in Germany and Britain in the roofing, cladding and construction industries and on ventilated façade systems.