### Survey of drawings

**BAS "TONALITY ®"**

Clinch rail system

<table>
<thead>
<tr>
<th>Description</th>
<th>Drawing / File name</th>
<th>Color page</th>
<th>File page</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1 Basics</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.1</td>
<td>Structural survey of BAS and joint options</td>
<td>ANo.: BAS 200-01</td>
<td>BAS 01</td>
</tr>
<tr>
<td>1.2</td>
<td>How to install BAS onto vertical substructure</td>
<td>ANo.: BAS 200-02</td>
<td>BAS 02</td>
</tr>
<tr>
<td>1.3</td>
<td>Illustration of recoveries and slides</td>
<td>ANo.: BAS 200-04</td>
<td>BAS 03</td>
</tr>
<tr>
<td>1.4</td>
<td>Mounting pattern</td>
<td>ANo.: BAS 200-04/1</td>
<td>BAS 03-1</td>
</tr>
<tr>
<td>1.5</td>
<td>Replacement-division of joints- / carrier profiles</td>
<td>ANo.: BAS 200-05</td>
<td>BAS 04</td>
</tr>
<tr>
<td>1.6</td>
<td>Tile grid heights and replacement points</td>
<td>ANo.: BAS 200-06</td>
<td>BAS 05</td>
</tr>
<tr>
<td>1.7</td>
<td>Exemplary use of wind barrier</td>
<td>ANo.: BAS 200-08</td>
<td>BAS 06</td>
</tr>
<tr>
<td>1.8</td>
<td>Illustration of system depths and joint profiles</td>
<td>ANo.: BAS 200-07 + 07/1</td>
<td>BAS 07</td>
</tr>
<tr>
<td>1.9</td>
<td>Details of soffit clamps</td>
<td>ANo.: BAS 200-27</td>
<td>BAS 08</td>
</tr>
<tr>
<td>1.10</td>
<td>Illustration mountin pattern with <em>Flex</em> holder</td>
<td>ANo.: BAS 200-50</td>
<td>BAS 10 (Flex)</td>
</tr>
<tr>
<td>1.11</td>
<td>How to install <em>Flex</em> holder onto vert. substructure</td>
<td>ANo.: BAS 200-51</td>
<td>BAS 11 (Flex)</td>
</tr>
<tr>
<td>1.12</td>
<td>Replacement-division for <em>Flex</em> holder</td>
<td>ANo.: BAS 200-52</td>
<td>BAS 12 (Flex)</td>
</tr>
<tr>
<td>1.13</td>
<td>Illustration of <em>Flex</em> joint profiles</td>
<td>ANo.: BAS 200-53</td>
<td>BAS 13 (Flex)</td>
</tr>
<tr>
<td><strong>2 Typical details</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.1</td>
<td>No. 1: Vertical section of fixed / floating point</td>
<td>ANo.: BAS 200-19</td>
<td>BAS 20</td>
</tr>
<tr>
<td>2.2</td>
<td>No. 1.1: ... onto wooden substructure</td>
<td>ANo.: BAS 200-19.1</td>
<td>BAS 20.1</td>
</tr>
<tr>
<td>2.3</td>
<td>No. 1.2: ... onto wooden substructure</td>
<td>ANo.: BAS 200-19.2</td>
<td>BAS 20.2</td>
</tr>
<tr>
<td>2.4</td>
<td>No. 2+3: V-section of roof parapet / bottom end</td>
<td>ANo.: BAS 200-20 + 21</td>
<td>BAS 21</td>
</tr>
<tr>
<td>2.5</td>
<td>No. 4+5: Horizontal section of ext. corner</td>
<td>ANo.: BAS 200-09 + 10</td>
<td>BAS 22</td>
</tr>
<tr>
<td>2.6</td>
<td>No. 6: Horizontal section of internal corner</td>
<td>ANo.: BAS 200-11</td>
<td>BAS 23</td>
</tr>
<tr>
<td>2.7</td>
<td>- Survey of window details No. 7.1: H-section window on vert. substructure</td>
<td>ANo.: BAS 200-13 + BAS 200-14</td>
<td>BAS 24</td>
</tr>
<tr>
<td>2.8</td>
<td>No. 7.2 + 7.3: H-section with clay tile soffit</td>
<td>ANo.: BAS 200-14.1+14.2</td>
<td>BAS 25</td>
</tr>
<tr>
<td>2.9</td>
<td>No. 8.1 + 9.1: Vertical section through window</td>
<td>ANo.: BAS 200-15 + 16</td>
<td>BAS 26</td>
</tr>
<tr>
<td>2.10</td>
<td>No. 9.2: V-section with sun protection No. 9.3: V-section of lintel soffit with clay tile</td>
<td>ANo.: BAS 200-17 + 15.1</td>
<td>BAS 27</td>
</tr>
<tr>
<td>2.11</td>
<td>No. 7.4+10: Horizontal sections of transition from clay tile with Neoprene gasket to reveal + TICS</td>
<td>ANo.: BAS 200-14.3 + 30</td>
<td>BAS 28</td>
</tr>
<tr>
<td>2.12</td>
<td>No. 9.4: V-section fitting tile lintel + <em>Flex</em> holder</td>
<td>ANo.: BAS 200-55</td>
<td>BAS 30 (Flex)</td>
</tr>
<tr>
<td><strong>3 List of components</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.1</td>
<td>Tile grid height 150 mm</td>
<td>ANo.: BAS ET 01 - 03</td>
<td></td>
</tr>
<tr>
<td>3.2</td>
<td>Tile grid height 175 mm</td>
<td>ANo.: BAS ET 04 - 06</td>
<td></td>
</tr>
<tr>
<td>3.3</td>
<td>Tile grid height 200 mm</td>
<td>ANo.: BAS ET 07 - 09</td>
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<tr>
<td>3.4</td>
<td>Tile grid height 225 mm</td>
<td>ANo.: BAS ET 10 - 12</td>
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<tr>
<td>3.5</td>
<td>Tile grid height 250 mm</td>
<td>ANo.: BAS ET 13 - 15</td>
<td></td>
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<tr>
<td>3.6</td>
<td>Tile grid height 300 mm</td>
<td>ANo.: BAS ET 16 - 18</td>
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<tr>
<td>3.7</td>
<td>Tile grid height 400 mm</td>
<td>ANo.: BAS ET 19 - 21</td>
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<tr>
<td>3.8</td>
<td>Tile grid height 500 mm</td>
<td>ANo.: BAS ET 22 - 24</td>
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</tr>
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<td>3.9</td>
<td>Tile grid height 600 mm</td>
<td>ANo.: BAS ET 25 - 27</td>
<td></td>
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<tr>
<td>3.10</td>
<td>Components irrespective of grid heights</td>
<td>ANo.: BAS ET A01 - 02</td>
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<tr>
<td>3.11</td>
<td><em>Flex</em>-Components irrespective of grid heights</td>
<td>ANo.: BAS ET A03 - 04</td>
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</tr>
</tbody>
</table>

2018-07 ~ subject to alterations
"TONALITY®"-Clay tile facade system
1 "TONALITY®"-Clay tile
2 "TONALITY®"-BAS clinch rail system (metallic)
3 "TONALITY®"-Protection against dismantling
4 Primary substructure: aluminium T-profiles (performer's services)
5 Primary substructure: metallic wall holders (performer's services)

"TONALITY®"-Clay tile facade
BAS clinch rail system
Structural overview and joint options

ANo. BAS 200-01

The primary substructure is to be mounted in accordance with project-related structural analysis.

- joint profile, continuous "standard" joint 8 mm
- joint profile, continuous "flush with leading edge" joint 8 mm
- Precision joint 20 mm depth joint 2 mm
- Precision joint "flush with leading edge" joint 2 mm - pitted

The Clinch Rail System
Primary substructure:
The determination of distances and the choice of bracket types, plugs, rivets and screws are subject to the project-related structural design according to which the performer has to proceed.

Wall holders, plugs and aluminium T-profiles are part of the performer’s services.

"TONALITY®"-BAS clinch rail profile

So do rivets / drilling screws; and they depend on static figures.

"TONALITY®" - Classic 26 cladding tile

Note:
These tiles have to be installed free from any constraint.
At the second connection of the upper end of the clinch rail, the screws have to be in top-most position flush with the oblong hole in order to allow for secured proper carrying capacity.

With several carrier rails on top of each other, their total length and the distance between the recoveries of two adjacent rails must not exceed 2.80 m.

It is recommended to connect the base clinch rail with the reverse side of the retaining profile by using self-drilling tapping screws of type DIN EN ISO 15481 (DIN 7504, Form N) 4.8 x 19mm in stainless steel, or equivalently, with load-carrying capacity meeting test certificate requirements. Whatever method is applied, two screws are arranged per recovery peg. The vertical distance of the connection points corresponds to the double nominal tile height and thus varies between 350 and 500 mm.

The number of wall holders is defined by structural design.
"TONALITY®"-Clay tile facade
BAS clinch rail system
Mounting pattern

ANo. BAS 200-04/1
"TONALITY®"-Clay tile facade
BAS clinch rail system
Division of replacements

ANo. BAS 200-05

Zo: Tile inset upside
Zu: Tile inset downward

Profile length = Number of grids minus 6 mm

* Thermal linear expansion requires a gap of at least 6 mm between both 2 adjacent tiles and rails (see NTA National Technical Approval).

<table>
<thead>
<tr>
<th></th>
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<td>18</td>
<td>2694</td>
<td>55</td>
<td>75</td>
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</table>

Division of Replacements
**"TONALITY®"-Clay tile facade**

Tile grid heights and replacement points of the BAS clinch rail system

**ANo. BAS 200-06**

**Grid height / length ratio (maximum)**

<table>
<thead>
<tr>
<th>Height</th>
<th>Length</th>
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<tbody>
<tr>
<td>150 x 900</td>
<td>175 x 900</td>
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<tr>
<td>200 x 1.600</td>
<td>225 x 1.600</td>
</tr>
<tr>
<td>250 x 1.600</td>
<td>300 x 1.600</td>
</tr>
<tr>
<td>400 x 1.600</td>
<td>500 x 1.600</td>
</tr>
<tr>
<td>600 x 1.600</td>
<td></td>
</tr>
</tbody>
</table>
For wind barriers, vertical external corner profiles with sealing gasket and joint profiles are compulsory.

(dwg all-06+206 at: BAS ET A 01)

Wind barrier as per DIN 1055 for wind loads, part 4

Plug fastened, depends on what type of plug is approved of. According to static requirements.
For vertical section see detail BAS 04

system depth 31 mm

For vertical section see detail BAS 04

system depth 31 mm
"TONALITY®" Clay tile facade

Details of soffit clamp

ANo. BAS 200-27
scale 1:2 with DIN-A4

"TONALITY®" soffit clamp for external corners 20 x 66 x 66 x 20 mm
Mat.: AlMg3 H22 mill finish

delivery without screws.
Manual assembly required.

For "TONALITY®" clay tile heights:

150

For "TONALITY®" clay tile heights:
175 + 200 + 225 + 250 + 300 - 600

For placing purchase orders we recommend our "Order forms"
System: BAS - Flex

"TONALITY®"-Clay tile facade
BAS - Flex Holder
Mounting pattern

ANo. BAS 200-50

Mounting Pattern

Zo
- tile inset upside

Zu
- tile inset downward

Flex-Holder

Flex-joint profile
Tile length =
Axis measurement - 2 x 3.0 - 2 x 1.0 = 8 mm

Example: Axis measurement = 450 mm
Exact tile length = 450 - 8.0 = 442 mm

Note:
These tiles have to be installed free from any constraint.

Primary substructure:
The determination of distances and the choice of bracket types, plugs, rivets subject to the project-related structural design according to which the performer has to proceed.

Wall holders, plugs and aluminium T-profiles are part of the performer’s services.

"TONALITY®"-BAS - Flex Holder
with Flex joint profile

So do rivets;
and they depend on static figures.

"TONALITY®"- Classic 26
cladding tile
**Division of Replacements**

"TONALITY*-Clay tile facade
BAS - Flex Holder
Division of replacements

ANo. BAS 200-52

---

**Thermal linear expansion requires a gap of at least 6 mm between both 2 adjacent tiles and rails (see NTA National Technical Approval).**

<table>
<thead>
<tr>
<th>Grid height</th>
<th>Dim. L</th>
<th>number of grids (arithmetical)</th>
<th>number of Brackets</th>
<th>Dim. F</th>
<th>Dim. B</th>
<th>Dim. C</th>
<th>Dim. G</th>
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</thead>
<tbody>
<tr>
<td>150</td>
<td>2794</td>
<td>18.6 x</td>
<td>37</td>
<td>43</td>
<td>75</td>
<td>75</td>
<td>32</td>
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<tr>
<td>175</td>
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<td>16 x</td>
<td>32</td>
<td>43</td>
<td>100</td>
<td>75</td>
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<tr>
<td>200</td>
<td>2794</td>
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<td>9</td>
<td>152</td>
<td>300</td>
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<td>148</td>
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</tbody>
</table>
system depth 31 mm

system depth 39 mm

unrestricted ventilation

closed joint profile (21 mm)

closed joint profile (29 mm)

closed joint profile (29 mm) at "TONALITY®-PLUS"

end strip

"TONALITY®-Clay tile facade
BAS - Flex Holder
Illustration of joint profiles

ANo. BAS 200-53/1
Scale: 1:1 with DIN A3

system depth 31 mm

system depth 39 mm

unrestricted ventilation

'thickness of insulation depending on

axis

axis

'thickness of insulation depending on axis

axis

axis

'precision joint' profile (21 mm)

'precision joint' profile (29 mm)

'precision joint' profile (29 mm) at "TONALITY®-PLUS"

ILLUSTRATION OF JOINT

"TONALITY®-Clay tile facade
BAS - Flex Holder
Illustration of 'precision joint'

ANo. BAS 200-53/2
Scale: 1:1 with DIN A3

2018-01 Subject to alterations INDUSTRIAL RIGHTS APPLIED FOR (26 / 34) BAS 13 (Flex)
"TONALITY®" - Clay tile facade
BAS clinch rail system
vertical section of fixed / floating point

ANo. BAS 200-19
Scale: 1:2 with DIN A3

The German National Board of Structural Engineering (BIFT) permits the use of any plugs matching project-related static design.

INDUSTRIAL RIGHTS APPLIED FOR
BAS clinch rail system
Vertical section of fixed / floating point in wooden primary substructure

ANo. BAS 200-19.1
scale 1:2 with DIN-A3

"TONALITY*"-Clay tile facade

Subject to alterations
2018-01

TYPICAL DETAIL 1.1

INDUSTRIAL RIGHTS APPLIED FOR (26) BAS 20.1
"TONALITY®" Clay tile facade

**BAS clinch rail system**
Vertical section of fixed / floating point in wooden substructure

ANo. BAS 200-19.2
scale 1:2 with DIN-A3

**Typical Detail 1.2**

- **Primary wooden framework** (not delivered by TONALITY)
- Corresponding to TONALITY grid sizes
- **Supplementary isolation** on request
- **Grid height**
- **Vertical section** in dependence of statics and system depth (~150-250)
- **Primary wooden framework** (not delivered by TONALITY)
- **Corresponding to TONALITY grid sizes**
- **Unrestricted ventilation**
- **Wind barrier** (by others)
- **Fixation conform to statics** (stainless steel)
- **Wooden battens** approx. 80x40 (in dependence with statics)
- **Horizontal section**
- **Wooden batten** horizontal, min. 40
- **Wooden batten** vertical, min. 40
- **System depth** 31
- **Planning grid**
- **Planning grid**

2018-01 Subject to alterations INDUSTRIAL RIGHTS APPLIED FOR (26) BAS 20.2
Design in accordance with the regulations for pitched roofs:

External vertical lateral rails serving as cover or closing-off should overlap the top edge of either plaster or cladding tiles.

Building height:
- up to 8 m: min. 50 mm
- over 8 up to 20 m: min. 80 mm
- over 20 m: min. 100 mm

Recommended closing-off height for roofs above ground:
- for pitched roof areas ≤ 5° = ~ 100 mm
- for pitched roof areas > 5° = ~ 50 mm

Above any covering or fill-up grit.

Min. drainage area of projecting covers or closing-off rails is 20 mm.

Bottom wall sealing and wall insulation are not illustrated. They belong to the planner’s field of responsibility.
External corner, 90° angle with mitre cut

- Clay tile facade
- BAS clinch rail system
- Horizontal section of external corner

**TYPICAL DETAIL 4**

Unrestricted ventilation

alu metal sheet, thickness conform to statics (3mm)

**TYPICAL DETAIL 5**

Unrestricted ventilation

reveal / lintel profile end rail (20x40x20mm)

alu metal sheet, thickness conform to statics (3mm)
Internal corner 90°

"TONALITY®"-Clay tile facade
BAS clinch rail system
Horizontal section of internal corner

ANo. BAS 200-11
Scale: 1:1 with DIN A3

optional:
unrestricted ventilation

"TONALITY®"-cladding tile
axis tile length

"TONALITY®"-cladding tile
axis tile length

"TONALITY®"-cladding tile
axis tile length

"TONALITY®"-closing-off profile
(20 x 40 x 23, dwg 784 / 785)

"TONALITY®"-centre joint profile, dwg 206

"TONALITY®"-reveal / lintel profile end rail
(20x40x20mm)

"TONALITY®"-reveal / lintel profile end rail
(20x40x20mm)
TYPICAL DETAIL "7.1" of ANo. BAS 200-13

TONALITY®- Clay tile facade
BAS clinch rail system
Survey of window details

ANO. BAS 200-13
Scale: 1:5 with DIN A3

horizontal details "7.x"
vertical details (top) "9.x"
vertical details (bottom) "8.x"

TONALITY®- Clay tile facade
BAS clinch rail system
Horizontal section of window
ANK. BAS 200-14
Scale: 1:1 with DIN A3

"TONALITY®"- end rail 20x40x20mm
unrestricted ventilation
Insulation is to be performed in accordance with current thermal protection guidelines

"TONALITY®"- cladding tile belongs to the building contractor's field of responsibility

conform to TONALITY-GmbH’s figures, indices and statics

2018-01 Subject to alterations INDUSTRIAL RIGHTS APPLIED FOR (26) BAS 24
**TONALITY®** — Clay tile facade
BAS clinch rail system
Horizontal section of window
with deep soffit

**TYPICAL DETAIL "7.2"**
of ANo. BAS 200-13

External corner,
90° angle
with mitre cut
and vertical primary
substructure

---

**TONALITY®** — Clay tile facade
BAS clinch rail system
Horizontal section of window
with shallow soffit

**TYPICAL DETAIL "7.3"**
of ANo. BAS 200-13

External corner,
90° angle
with mitre cut
and vertical primary
substructure

---

With small soffit tiles, it is recommended to pre-assemble the corner by using "TONALITY®"-soffit clamps.

*Insulation is to be performed in accordance with current thermal protection guidelines.*

*Insulation is to be performed in accordance with current thermal protection guidelines.*

*Insulation is to be performed in accordance with current thermal protection guidelines.*

---

2018-01 Subject to alterations

INDUSTRIAL RIGHTS APPLIED FOR

(26) BAS 25
"TONALITY®-Clay tile facade
BAS clinch rail system
Vertical section of lintel junction

ANo. BAS 200-15
Scale: 1:1 with DIN A3

horizontal joint spacer for tile sections with one restoring pin only
see ANo. dwg al-16, necessitates glue, e.g. SikaBond T1

* Insulation is to be performed in accordance with current thermal protection guidelines

horizontal joint spacer for tile sections with one restoring pin only
see ANo. dwg al-16, necessitates glue, e.g. SikaBond T1
"TONALITY®-Clay tile facade
BAS clinch rail system
Vertical section of window
lintel connectors

TYPICAL DETAIL "9.2"
of Ano. BAS 200-17
Scale: 1:1 with DIN A3

"TONALITY®-Clay tile facade
BAS clinch rail system
Vertical section of lintel
soffit with clay tile

TYPICAL DETAIL "9.3"
of Ano. BAS 200-15.1
Scale: 1:1 with DIN A3

Insulation is to be
performed in accordance
with current thermal
protection guidelines.

Please adhere to the distance between socket and facade!
A TYPICAL DETAIL "7.4"

of ANo. BAS 200-13

Subject to alterations

INDUSTRIAL RIGHTS APPLIED FOR
"TONALITY®"-Clay tile facade
vertical section of fitting clay tile at lintel with
BAS - Flex Holder

ANO. BAS 200-55
Scale: 1:1 with DIN A3

"TONALITY®"-Clay tile facade
vertical section of fitting clay tile at lintel with
BAS - Flex Holder

ANO. BAS 200-55
Scale: 1:1 with DIN A3

fitted clay tile at lintel
optionally with
BAS Flex Holder

"TONALITY®"-Clay tile facade
vertical section of fitting clay tile at lintel with
BAS - Flex Holder

ANO. BAS 200-55
Scale: 1:1 with DIN A3

fitted clay tile at lintel
optionally with
BAS Flex Holder

"TONALITY®"-Clay tile facade
vertical section of fitting clay tile at lintel with
BAS - Flex Holder

ANO. BAS 200-55
Scale: 1:1 with DIN A3

fitted clay tile at lintel
optionally with
BAS Flex Holder

"TONALITY®"-Clay tile facade
vertical section of fitting clay tile at lintel with
BAS - Flex Holder

ANO. BAS 200-55
Scale: 1:1 with DIN A3

fitted clay tile at lintel
optionally with
BAS Flex Holder