

**Technical Data Sheet**  
**TDS-07-75**

## **Zenturo® Swing Gate**

### **1 Scope**

This technical data sheet specifies the requirements for swing gates with Zenturo® infill.

The gate consists of different components:

- Gate posts (Hinge and latch post)
- Wing
- Accessories (hinges, lock-system, ground bolt)

There are 2 types: Single Zenturo® swing gates (figure 1) and double Zenturo® swing gates (figure 2).



**Figure 1: Single Zenturo® Swing Gate**

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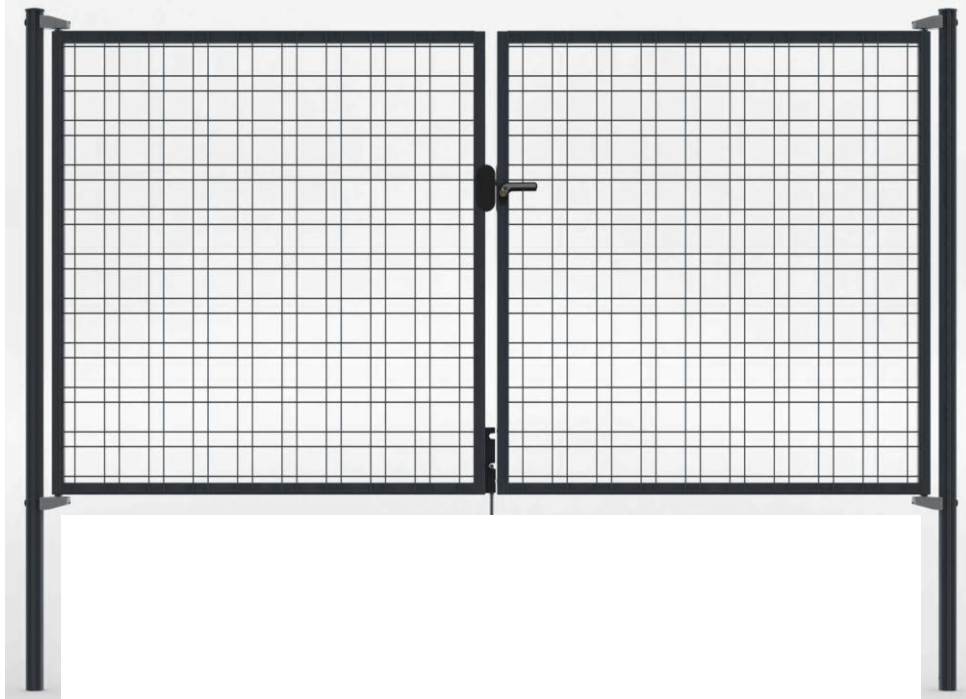
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**Figure 2: Double Zenturo® Swing Gate**

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**Zenturo® Swing Gate****1.1 Normative References**

- EN 10346: Continuously hot-dip coated steel flat products - Technical delivery conditions.
- EN 10025-2: Hot rolled products of structural steels – Part 2: Technical delivery conditions for non-alloy structural steels.
- ISO 16120-2: Non-alloy steel wire rod for conversion to wire – Part2: Specific requirements for general purpose wire rod.
- EN 1179: Zinc and zinc alloys – primary zinc.
- ISO 3506-1: Mechanical properties of corrosion-resistant stainless steel fasteners - Part 1: Bolts, screws and studs.
- EN 10088-3: Stainless steels - Part 3: Technical delivery conditions for semi finished products, bars, rods, wire, sections and bright products of corrosion resisting steels for general purposes.
- ISO 22034-2: Steel wire and wire products - Part 2: Tolerances on wire dimensions.
- EN 10223-7: Steel wire and wire products for fences – Part 7: Steel wire welded panels – for fencing.
- ISO 9227: Corrosion tests in artificial atmospheres; salt spray tests.
- ISO 16474-3: Paints and varnishes – Methods of exposure to laboratory light sources – Part 3: Fluorescent UV lamps.

**2 Raw materials****2.1 Steel used for the gate posts**

The gate posts are made out of continuously hot dip zinc coated steel sheet (Sendzimir) in accordance with EN 10346, designation S250, Zinc coating designation Z275.

**2.2 Steel used for the frame**

The frame is made out of construction steel in accordance with 10025-2.  
The designation of the steel is: S235.

Yield strength : Min 235 N/mm<sup>2</sup>

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### 2.3 Wire rod used for Zenturo® infill panel

Chemical composition: See table 1

<b>Table 1 : Chemical composition</b>	
Element	%
C	≤ 0,10
Si	≤ 0,30
Mn	≤ 0,70
P	≤ 0,035
S	≤ 0,035

The designation of the wire rod is based on grade C9D – ISO 16120-2.

### 2.4 Steel used for the screws

The screws are made out of stainless steel, grade A2 in accordance with ISO 3506-1.

### 2.5 Zinc and KTL

Posts:

Zinc coating: Min of 275g/m<sup>2</sup> as an average of 3 measurements and double-side determined in accordance with EN 10346 (Z275)

Frame of the wing:

Made out of bright steel, KTL treated and afterwards polyester coated.

Infill panel:

Minimum 99,95% of pure zinc is used for galvanising, in accordance with Z3 of EN 1179.

### 2.6 Polyester

The polyester is free from Lead and Cadmium.

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## Zenturo® Swing Gate

### 3 Properties

#### 3.1 Dimensions and tolerances

##### 3.1.1 Wing and posts

See tables 2 and 3.

<b>Table 2: DIMENSIONS STANDARD ZENTURO® SWING GATES</b>					
SINGLE SWING GATES					
Width (mm)	Height (mm)	Gate post (mm)	Opening (mm)	Center - center C-C (mm)	Zenturo® infill panel (mm)
1000	955	60 x 2,00 x 1750	1090	1150	955 x 955
	1255	60 x 2,00 x 2050			1255 x 955
	1555	60 x 2,00 x 2300			1555 x 955
	1705	60 x 2,00 x 2500			1705 x 955
	2005	60 x 2,00 x 2800			2005 x 955

<b>Table 3: DIMENSIONS STANDARD ZENTURO® DOUBLE SWING GATES</b>					
DOUBLE SWING GATES					
Width (mm)	Height (mm)	Gate post (mm)	Opening (mm)	Center - center C-C (mm)	2 x Zenturo® infill panels (mm)
3000	955	60 x 2,00 x 1750	3034	3094	955 x 1405
	1255	60 x 2,00 x 2050			1255 x 1405
	1555	60 x 2,00 x 2300			1555 x 1405
	1705	60 x 2,00 x 2500			1705 x 1405
	2005	60 x 2,00 x 2800			2005 x 1405

Frame is made out of square tubes.  
 Dimensions: 40 x 40 x 1,50mm

Other dimensions and tolerances can be found in the technical drawings, available on request.

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## Zenturo® Swing Gate

### 3.1.2 Panel

The Zenturo® infill panels are welded on top of the gate frame.  
 The standard gate infill consists of a Zenturo® wire mesh panel with double alternating horizontal wires.

Gates with a Zenturo® Super wire mesh panel are available on request.

#### 3.1.2.1 Wire diameters and tolerances

See table 4:

<b>Table 4: Wire diameters and tolerances</b>				
	Horizontal wire (mm)		Vertical wire (mm)	
	Core wire	Polyester coated	Core wire	Polyester coated
Zenturo® (Super) panels	4,65 ± 0,06	5,00 ± 0,20	3,80 ± 0,06	4,15 ± 0,20

The tolerances are in accordance with ISO 22034-2.

#### 3.1.2.2 Tensile strength of the wires

Vertical Wire: Min. 400 N/mm<sup>2</sup>.

Horizontal wire: Min 500 N/mm<sup>2</sup>.

#### 3.1.2.3 Mesh sizes

See tables 5 and 6:

<b>Table 5: Mesh sizes Zenturo® panel</b>			
Mesh sizes (mm)	Mesh size 100 x 100 mm	Mesh size 100 x 50 mm	Mesh size 50 x 50 mm
Distance between the horizontal wires	100 ± 3,0 mm	100 ± 3,0 mm	50 ± 3,0 mm
Distance between the vertical wires	100 ± 3,0 mm	50 ± 3,0 mm	50 ± 3,0 mm

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## Zenturo® Swing Gate

**Table 6: Mesh sizes Zenturo® Super panel**

Mesh sizes (mm)	Mesh size 100 x 50 mm	Mesh size 50 x 50 mm
Distance between the horizontal wires	100 ± 3,0 mm	50 ± 3,0 mm
Distance between the vertical wires	50 ± 3,0 mm	50 ± 3,0 mm

The tolerances are in accordance with the European standard EN 10223-7.

### 3.1.2.4 Overhangs

Vertical and horizontal overhangs: Maximum 3 mm.

### 3.1.2.5 Weld shear strength

Four welds selected at random from the panel shall be tested on weld shear strength. The average of these measurements shall be not less 50% of the min. breaking load of the wire, in accordance with EN 10223-7.

### 3.1.2.6 Barbs

The panel has no barbs.

### 3.1.2.7 Dimensions of the panels

Height of the panel: See table 2 and 3, Tolerance: ± 3 mm, measured from centre to centre.  
 Width of the panel: See table 2 and 3, Tolerance: ± 3 mm, measured from centre to centre.

All other dimensions and tolerances can be found on the technical drawings, available on request.

## 4 Coating

Posts and wing are coated with zinc and polyester, the wing is coated with KTL and subsequently polyester, resulting in an excellent corrosion resistance.

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## Zenturo® Swing Gate

### 4.1 Metallic coating

**Posts:**

Min. of 275 g/m<sup>2</sup> as an average of 3 measurements and double side determined.  
In accordance with EN 10346. (Z275)

**Zenturo® infill panel:**

The Zenturo® infill panel is made out of galvanized steel wires with a min. zinc weight of 30 g/m<sup>2</sup>.

### 4.2 Organic coating

**Posts:**

Min. 60 µm (Average of 10 measurements done on 1 gate wing / post)

**Wing:**

The wing (frame) is KTL treated and afterwards polyester coated.  
The total coating layer has a minimum of 80 µm.

**Standard colour:** Metallic Anthracite BF7016M, other colour on request.

**Adhesion:**

Make two scratches by means of a hard metal pointed graving tool, penetrating through the metal and intersecting at an angle of 30° ± 5°. Lift a 30° peak with the point of a knife. The coating shall not be able to be lifted from the metal by more than 5 mm.

**Resistance of the polyester to saltspray:**

Make a diagonal cross by means of a hard metal pointed graving tool, penetrating through the metal. Test in accordance with ISO 9227. After 1000 h there shall be no corrosion beneath the polyester or loss of adhesion in excess of 10 mm from the diagonals.

**Resistance against UV:** In accordance with ISO 16474-3.

After 1000 h QUV and after washing with pure water, the colour difference, expressed as  $\Delta E^*$  is maximum 3.

Loss of gloss: After 1000 hours max. 50 % of the original one, measured after being washed with pure water.

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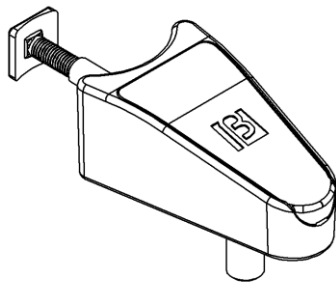
### 5 Accessories

- **Hinges:**

Body: Made out of aluminium & finished in a silver polyester coating

Bush, top cover & counter cover: made from black plastic

The fixation hardware: Made out of galvanized or stainless steel, grade 304, number 1.4301 in accordance with EN 10088-3.



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## Zenturo® Swing Gate

- **Ground bolt:** For double swing gates.

The ground bolt is made out of galvanised steel.

The ground plate is made out of construction steel and afterwards hot dip galvanized + black polypropylene cover.

The ground bolt guide is made out of aluminium, black coated.

Screws and other fasteners are made out of stainless steel, grade A2 in accordance with ISO 3506.



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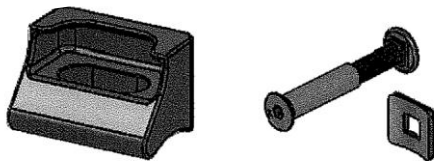
## Zenturo® Swing Gate

- **Slamplate:**

Single gate:

The slamplate and the post nut – counterpart slamplate are made out of black plastic.

The fixation hardware is made out of galvanized or stainless steel, grade 304, number 1.4301 in accordance with EN 10088-3.



Double gate:

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The slamplate is made out of black plastic.

The screws M6 x 16 are made out of galvanized or stainless steel, grade A2, in accordance with ISO 3506-1.



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## Zenturo® Swing Gate

- **Lock System:**

The small cover cap for the screws, rosace, cylinder fixation, handle left and handle right are made out of black plastic.

The handles (with Betafence logo) have a silver coloured plastic cover.

The handle has as an integrated cylinder.

All other visible metal parts of the lock system are made out of stainless steel, grade 304, number 1.4301 in accordance with EN 10088-3 or coated steel to assure good corrosion resistance.



- **Post cap**

Each gate post is provided with a cap out of UV resistant plastic.



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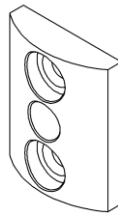
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## Zenturo® Swing Gate

- **Adaptor piece for wall fixation:** Made out of black plastic

Technical drawing: ACC49P000002



### 6 Packaging

The 2 Bekaclip® posts, gate wing(s), accessories (cardboard box with plastic foil) and brackets (plastic bag) are packed together on a wooden. Afterwards, the whole package is wrapped with shrink foil until one firm unit.

#### Packed Accessories for single gate:



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**Packed Accessories for double gate:**



<b>Table 7: Form of delivery: Single Zenturo® swing gate</b>				
Dimensions of the gate (mm)	Dimensions of the packed unit (mm)	Pallet dimensions (mm)	Weight / gate (kg)	Sapcode Metallic Anthracite BF7016M
1000 x 950	177 x 104 x 20	108 x 105 x 110	22,47	7054123
1000 x 1250	202 x 104 x 20	203 x 105 x 113	27,10	7054124
1000 x 1550	227 x 104 x 20	230 x 105 x 110	31,60	7054125
1000 x 1700	277 x 104 x 20	255 x 105 x 110	35,50	7054126
1000 x 2000	247 x 104 x 20	280 x 105 x 110	40,00	7054129

5 sets of single Zenturo® swing gates are packed on 1 pallet.

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<b>Table 8: Form of delivery: Double Zenturo® swing gate</b>				
Dimensions of the gate (mm)	Dimensions of the packed unit (mm)	Pallet dimensions (mm)	Weight / gate (kg)	Sapcode Metallic Anthracite BF7016M
3000 x 950	178 x 156 x 17	180 x 160 x 120	44,00	7054138
3000 x 1250	203 x 156 x 17	207 x 160 x 120	51,50	7054139
3000 x 1550	228 x 156 x 17	230 x 160 x 120	62,10	7054140
3000 x 1700	248 x 156 x 17	255 x 160 x 120	69,50	7054141
3000 x 2000	278 x 156 x 17	280 x 160 x 120	80,40	7054142

6 sets of double Zenturo® swing gates are packed on 1 pallet.

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