

**Technical Data Sheet**  
**TDS-07-21**

## **Egidia® M50 Swing Gate**

### **1 Scope**

This TDS specifies requirements for swing gates with 50X50 mesh infill.

The gate consists of different components:

- Gate posts (Hinge post and latch post)
- Wing(s)
- Accessories eg.(Hinges, lock-system, ground bolt)

There are 2 types; single Egidia® M50 swing gates (figure 1) and double Egidia® swing gates (figure 2).



**Figure 1: Single and double wing Egidia® M50 Swing Gate**

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### 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.
- 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 3506-1: Mechanical properties of corrosion-resistant stainless steel fasteners - Part 1: Bolts, screws and studs.
- 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 Sendzimir steel (Used for the posts and wing)

Chemical composition: See table 1

<b>Table 1 : Chemical composition</b>	
Element	%
C	≤ 0,20
Si	Max. 0,60
Mn	Max. 1,70
P	Max. 0,12
S	Max. 0,045

The steel is in accordance with the European Standard EN 10346. The designation of the steel is: S250. The steel strip is continuously hot-dip galvanized, in accordance with EN 10346 Z275.

If DX51D quality is used in accordance to EN 10346, the yield strength shall be minimum 270 N/mm<sup>2</sup>.

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### 2.2 Wire rod used for the infill panels)

See table 2.

<b>Table 2: Chemical composition</b>	
Element	%
C	≤ 0,10
Si	≤ 0,30
Mn	≤ 0,70
P	≤ 0,035
S	≤ 0,035

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

### 2.3 Stainless steel

Stainless steel quality, grade 304, number 1.4301 in accordance with EN 10088-3 or grade A2 in accordance with ISO 3506-1 is used for the different materials mentioned in point 5 accessories.

### 2.4 Polyester

The polyester is free from Lead and Cadmium.

## 3 Properties

### 3.1 Dimensions and tolerances

See paragraph 7.1 and table 4 and 5.

All other dimensions and tolerances are specified in the corresponding technical drawings, available on request.

## 4 Coating

### 4.1 Metallic coating

The posts and wings are manufactured from Sendzimir steel plate with zinc coating thickness on the Z275 is in accordance with EN 10346. Average of 3 measurements and double side determined.

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### 4.2 Organic coating

The posts are polyester coated with a coating thickness of minim 60 µm.  
Standard colour: Green RAL 6005, Black RAL 9005 and Anthracite RAL 7016.

**Adhesion:**

Make two scratches by means of a hard metal pointed graving tool, penetrating through the metal and intersecting at an angle of  $30^\circ \pm 5^\circ$ . Lift a  $30^\circ$  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:**

After 1000h exposure to salt spray according to ISO 9227, there will be no loss of adhesion of more than 10 mm from a cut in the coating.

**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.

## 5 Accessories

Each gate is provided with an accessory box. The content of the box is specified in table 3.

<b>Table 3: Contents of the accessory boxes for single and double swing gates</b>		
	Single swing gate	Double swing gate
Hinge (complete with 2 nuts, 2 washers and hangerbolt washer)	2 hinges	4 hinges
Hinge tubes + hangerbolt washers	2 hinge tubes + 2 washers	4 hinge tubes + 4 washers
Lock system + 3 stainless steel bolts	1 Lock + 3 bolts	1 Lock + 3 bolts
Slamplate	1 slamplate	1 slamplate
Handle cover plate	2 plates 4+8 stainless bolts	2 plates 4+8 stainless bolts
Cylinder + 3 keys	1 cylinder +3 keys	1 cylinder + 3 keys
Lock handles	1 pair of handles with washers	1 pair of handles with washers
Lock system + 3 stainless steel bolts	1 Lock + 3 bolts	1 Lock + 3 bolts
Lock cover + 2 latch handles	Not needed	1 lock cover + 2 latch handles
Ground bolt	Not needed	1 ground bolt
Plugs Ø 15 to cover holes in the wing	4 plugs	8 plugs
Plugs Ø 18 to cover holes in the post	4 plugs	4 plugs
Installation manual	1 manual	1 manual

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- **Hinges:**

Dimensions of the hinges: M 16 x 160 mm (for the 60x60 posts) or M 16 x 180mm (for the 80x80 posts).

The hinge and the two nuts M 16 are made out of steel and afterwards hot dip galvanized. The washers M 16 and M14 are made out of stainless steel, grade A2 in accordance with ISO 3506-1.

The hinges are provided with hinge tubes (Ø 19 x 43 mm) in reinforced polyamide for the sets with 60x60 posts whereas brass tubes are provided for the 80x80 or 100x100 posts.



**Figure 2 : Hinge (for the 60x60 post)**

- **Lock System:**

The lock mechanism, the hook, the frontplate and latchbolt of the Fortylock system are made from stainless steel.

All visible metal parts of the lock system are made out of stainless steel, grade 304.

The lock is provided with a 54 cylinder.

The handles and the handle cover plate are made from aluminium.



**Figure 3**

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- **Slamplate:**

Type : SFKO

The front plate is made from stainless steel, grade 304.

The stopplate is made from aluminium.

The counterpart slamplate is made out of black plastic (polypropylene).



**Figure 4**

- **Latch handle** (for double swing gate) :

The handle is made out of black plastic and aluminium strip.



**Figure 5**

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- **Ground bolt:** (for double swing gates).

The ground bolt is made out of galvanised steel.

The ground bolt guide is made out of aluminium.

Screws and other fasteners are made out of stainless steel, grade A2 in accordance with ISO 3506-1.

- **Plugs**

Plugs (diam 15mm and diam 18mm) are made from black plastic (POM)

## 6 Packaging

There are two possibilities to order Egidia® swing gates:

- As Set: The complete gate already pre-assembled ready for installation.  
The gate is individually packed on a wooden pallet and wrapped with shrink foil.
- As Kit: The complete gate with all the components in accessory box, not pre-assembled.  
The different gate components are packed in the warehouse after receiving the customer order on a wooden pallet and wrapped with shrink foil.

## 7 Properties

### 7.1 Standard Types

See tables 4 and 5 (dimensions in mm).

The frame of the wings is manufactured from 40 x 40 x 1.5mm tubes.

The panel insert has a mesh size 50x50 and wire diameter 4mm.

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## Egidia® M50 Swing Gate

**Table 4 : Single Egidia M50 swing gates**

<i>Width</i>	<i>Heigth</i>	<i>C-C width</i>	<i>Free passage</i>	<i>Wing width</i>	<i>Wing height</i>	<i>Post height</i>	<i>Post section</i>	<i>Drawing N°</i>
1000	1000	1095	1035	960	980	1700	60x60x1.5	FSW00A500480
1000	1200	1095	1035	960	1180	1900	60x60x1.5	FSW00A500481
1000	1500	1095	1035	960	1480	2200	60x60x2	FSW00A500490
1000	1800	1095	1035	960	1780	2500	60x60x2	FSW00A500491
1000	2000	1095	1035	960	1980	2700	60x60x2	FSW00A500492
1200	1000	1295	1235	1160	980	1700	60x60x1.5	FSW00A500500
1200	1200	1295	1235	1160	1180	1900	60x60x1.5	FSW00A500501
1200	1500	1295	1235	1160	1480	2200	60x60x2	FSW00A500510
1200	1800	1295	1235	1160	1780	2500	60x60x2	FSW00A500511
1200	2000	1295	1235	1160	1980	2700	60x60x2	FSW00A500512
1500	1000	1580	1520	1445	980	1700	60x60x1.5	FSW00A500520
1500	1200	1580	1520	1445	1180	1900	60x60x1.5	FSW00A500521
1500	1500	1580	1520	1445	1480	2200	60x60x2	FSW00A500530
1500	1800	1580	1520	1445	1780	2500	60x60x2	FSW00A500531
1500	2000	1580	1520	1445	1980	2700	60x60x2	FSW00A500532
2000	1000	2100	2020	1945	980	1700	80x80x2	FSW00A500540
2000	1200	2100	2020	1945	1180	1900	80x80x2	FSW00A500541
2000	1500	2100	2020	1945	1480	2200	80x80x2	FSW00A500542
2000	1800	2100	2020	1945	1780	2500	80x80x2	FSW00A500543
2000	2000	2100	2020	1945	1980	2700	80x80x2	FSW00A500544

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**Table 5 : Double Egidia M50 swing gates**

<i>Width</i>	<i>Heigth</i>	<i>C-C width</i>	<i>Free passage</i>	<i>Wing width</i>	<i>Wing height</i>	<i>Post height</i>	<i>Post section</i>	<i>Drawing N°</i>
2000	1000	2095	2035	960	980	1700	60x60x1.5	FSW00A500550
2000	1200	2095	2035	960	1180	1900	60x60x1.5	FSW00A500551
2000	1500	2095	2035	960	1480	2200	60x60x2	FSW00A500560
2000	1800	2095	2035	960	1780	2500	60x60x2	FSW00A500561
2000	2000	2095	2035	960	1980	2700	60x60x2	FSW00A500562
2400	1000	2495	2435	1160	980	1700	60x60x1.5	FSW00A500570
2400	1200	2495	2435	1160	1180	1900	60x60x1.5	FSW00A500571
2400	1500	2495	2435	1160	1480	2200	60x60x2	FSW00A500580
2400	1800	2495	2435	1160	1780	2500	60x60x2	FSW00A500581
2400	2000	2495	2435	1160	1980	2700	60x60x2	FSW00A500582
3000	1000	3065	3005	1445	980	1700	60x60x1.5	FSW00A500590
3000	1200	3065	3005	1445	1180	1900	60x60x1.5	FSW00A500591
3000	1500	3065	3005	1445	1480	2200	60x60x2	FSW00A500600
3000	1800	3065	3005	1445	1780	2500	60x60x2	FSW00A500601
3000	2000	3065	3005	1445	1980	2700	60x60x2	FSW00A500602
4000	1000	4085	4005	1945	980	1700	80x80x2	FSW00A500610
4000	1200	4085	4005	1945	1180	1900	80x80x2	FSW00A500611
4000	1500	4085	4005	1945	1480	2200	80x80x2	FSW00A500612
4000	1800	4085	4005	1945	1780	2500	80x80x2	FSW00A500613
4000	2000	4085	4005	1945	1980	2700	80x80x2	FSW00A500614

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## Egidia® M50 Swing Gate

### 8 CE-marking and Declaration of Performance

#### CE-marking and Declaration of Performance

These gates are provided with a **CE label**. This means Betafence guarantees the gate has been **produced** following the **CE Regulations**, as specified in the EU Construction Products Regulation (N° 305/2011).

A specific **Declaration of Performance** (DoP) is available for this type of gate with number DoP- Beta-012. The number is written on the CE label and the contents of this Declaration of Performance can be consulted and printed from the web page:

<https://www.betafence.com/en/ce-documentation>

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