Technical Data Sheet
TDS-07-34

Fortinet® Swing Gate
(Complete sets)

1 Scope

This TDS specifies requirements for swing gates with Fortinet® infill.
The gate consists of different components:

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

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

Figure 1: Single Fortinet® Swing Gate

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Figure 2: Double Fortinet® 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.
- 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)

Chemical composition: See table 1

Table 1 : Chemical composition	
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 or S220 quality is used in accordance to EN 10346, the yield strength shall be minimum 235 N/mm².

2.2 Construction steel (Used for the frame of the wing)

Steel grade: S235 in accordance with EN 10025-2.
Chemical composition: See table 2.

Table 2 : Chemical composition	
Element	%
C	≤ 0,17
Mn	Max. 1,40
P	Max. 0,035
S	Max. 0,035

Mechanical values of the steel are given in Table 3:

Table 3: Mechanical Values	
Yield strength	Tensile strength
> 235 N/mm²	340 - 510 N/mm²

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 table 4 and 5, point 7.1

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

4 Coating

4.1 Metallic coating

a) Posts:

The posts are made from sendzimir strip. Minimum zinc weight: 275 g/m² (sum of both sides of the sheet). According to EN 10346. (Z275)

b) Frame of the wing:

According to the possibilities of the producing plant, the frame of the wing can be:

- Made out of bright steel and KTL treated.
- Made out of Sendzimir. Minimum zinc weight: 100 g/m² (sum of both sides of the sheet). According to EN 10346. (Z100)

4.2 Organic coating

Posts are coated with a polyester coating.
The minimum layer thickness is 60 µm.

The wing (frame) is KTL treated and afterwards polyester coated.
The total coating layer has a minimum of 80 µm.
Or
The wing is made out of Sendzimir and afterwards polyester coated.
The total coating layer has a minimum of 100 µm.

Standard colour green Ral 6005 and black Ral 9005.
Other standard colours are available on request and can be found in the technical data sheet TDS-99-03. (Polyester coating).

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 ΔE^* 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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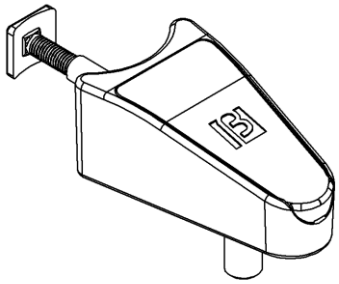
5 Accessories

- **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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- **Ground bolt:** For double swing gates up to 1450 mm.

The ground bolt is made out of aluminium.
The ground plate is made out of construction steel and afterwards hot dip galvanized.
The ground bolt guide is made out of PA6, colour black.
Screws are made out of stainless steel, grade A2, in accordance with ISO 3506-1.
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- **Ground bolt:** For double swing gates 1750 mm and 1950 mm.

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 3506-1.
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- **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 or grade A2 in accordance with ISO 3506-1.

Double gate:

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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- **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.

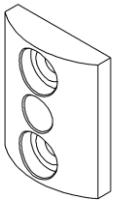
All other visible metal parts of the lock system are made out of stainless steel, grade 304, number 1.4301 in accordance with EN 10088-3 or grade A2 in accordance with ISO 3506-1 or coated steel to assure good corrosion resistance.

- **Post cap**

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

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

Technical drawing: ACC49P000002



6 Packaging

The round posts, gate wing(s), accessories (plastic blister) are packed together on a wooden one-way pallet. Afterwards, the whole package is wrapped with shrink foil until one firm unit.

Double swing gates 1750 mm and 1950 mm are delivered in separate elements: posts – wings – accessories.

7 Properties

7.1 Standard Types

See tables 4 and 5.

Table 4: Single Fortinet swing gate (sets)

Height of the wing (mm)	Width of the gate (C-C) (mm)	Width of the gate (Free passage) between the posts	Height of the post (mm)	Sapcode RAL 6005	Sapcode RAL 9005	Dimensions of pallets (cm)	Weight / piece (kg)	Drawing
750	980	920	1500	7054921	***	150 x 86 x 13	19	FSW00A000001
950	980	920	1750	7054922	7054930	178 x 86 x 13	23	FSW00A000002
1150	980	920	2000	7054923	7054932	202 x 86 x 13	25	FSW00A000003
1450	1000	904	2250	7054925	7054933	227 x 86 x 13	32	FSW00A000004
1750	1000	904	2500	7054926	7054934	254 x 86 x 13	36	FSW00A000005
1950	1000	904	2750	7054927	7054935	277 x 86 x 13	40	FSW00A000006
950	1230	1170	1750	7054937	***	178 x 113 x 13	25	FSW00A000102
1150	1230	1170	2000	7054940	***	202 x 113 x 13	29	FSW00A000103
1450	1250	1154	2250	7054945	***	227 x 113 x 13	34	FSW00A000104
1750	1250	1154	2500	7054947	***	254 x 113 x 13	39	FSW00A000105
1950	1250	1154	2750	7054949	***	277 x 113 x 13	43	FSW00A000106

(***) Not standard available

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Table 5: Double Fortinet swing gate (sets)

Height of the wing (mm)	Width of the gate (C-C) (mm)	Width of the gate (Free passage) between the posts	Height of the post (mm)	Sapcode RAL 6005	Sapcode RAL 9005	Dimensions of pallets (cm)	Weight / piece (kg)	Drawing
950	2970	2894	1750	7054955	7056370	152 x 105 x 18	42	FSW00A000202
1150	2970	2894	2000	7054958	7056371	202 x 120 x 18	50	FSW00A000203
1450	2970	2894	2250	7054968	7056372	219 x 150 x 18	57	FSW00A000204
1750	2970	2890	2500	7059225	7059251	150 x 175 x 30	71	FSW00A001005
1950	2970	2890	2750	7059227	7059052	150 x 195 x 30	77	FSW00A001006
950	3970	3894	1750	7054967	***	202 x 105 x 18	50	FSW00A000302
1150	3970	3894	2000	7054969	***	205 x 120 x 18	60	FSW00A000303
1450	3970	3894	2250	7054970	***	222 x 150 x 18	67	FSW00A000304
1750	3970	3890	2500	7059285	***	200 x 175 x 30	80	FSW00A001015
1950	3970	3890	2750	7059286	***	200 x 195 x 30	86	FSW00A001016

(***): Not standard available

All other dimensions are specified in the corresponding technical drawings, available on request.
Gate components (wings, posts, acc,…) can be ordered separately to perfectly assemble gates with a width 1,50 – 2,00 – 2,25 – 2,50 – 2,75 – 3,25 and 3,50 m