

**Decofor® Swing Gate****1 Scope**

This technical data sheet specifies the requirements for swing gates with Decofor® Arco and Recto infill panels.

The gate consists of different components:

- Gate posts with stainless steel inserts M6 for fence connection (Hinge and latch post)
- Wing
- Accessories (Hinges, lock-system, ground bolt)

There are 2 types: Single Decofor® Arco and Recto swing gates and double Decofor® Arco and Recto swing gates (See figure 1).

Decofor® Arco and Recto swing gates are CE labelled, in accordance with EN 13241-1.



**Figure 1: Single and Double Decofor® Arco and Recto swing gate**

**Decofor® Swing Gate****1.1 Normative References**

- EN 13241-1: Industrial, commercial and garage doors and gates - Product standard - Part 1: Products without fire resistance or smoke control characteristics
- EN 10219-1: Cold formed welded structural hollow sections of non-alloy and fine grain steels – Part 1: technical delivery conditions.
- ISO 16120-2: Non-alloy steel wire rod for conversion to wire – Part 2: Specific requirements for general purpose wire rod.
- ISO 1461: Hot dip galvanized coatings on fabricated iron and steel articles – Specifications and test methods.
- 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.

**1.2 Definitions**

- Nominal wire diameter: The diameter in mm to designate the wire.
- Real wire diameter: The average value of the minimal and the maximal diameter, measured in the same section of a straight piece of wire, by means of a micrometer accurate to 0,01 mm.
- Mesh sizes: The distance measured between the centres of two neighbouring wires.

**2 Raw materials****2.1 Steel used for posts and frame**

The posts and frame are made out of construction steel: Type S235 JRH class 1, in accordance with EN 10219-1.

Technical Data Sheet  
TDS-07-20

## Decofor<sup>®</sup> Swing Gate

### 2.2 *Wire rod used for Decofor<sup>®</sup> infill panel*

Chemical composition: See table 1

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.

### 2.3 *Zinc (Zinc used for hot dip galvanisation bath)*

In accordance with ISO 1461.

### 2.4 *Polyester*

The polyester is free from Lead and Cadmium.

## 3 **Properties**

### 3.1 *Dimensions and tolerances*

#### 3.1.1 *Wing and posts*

See tables 2 en 3:

Page: 3 / 12  
Date: 09-12-2016  
Replaces edition:  
25-08-2015

Made up by:  
Werner Frans  
Group Quality Department

Approved by:  
Willy Naesens  
Group Quality Manager

Technical Data Sheet  
TDS-07-20

## Decofor® Swing Gate

**Table 2: Dimensions Decofor® Recto swing gates**

<b>SINGLE SWING GATES (Concrete)</b>						
Width (mm)	Height (mm)	Gate post (mm)	Distance between posts (mm)	Free passage (mm)	Center- center C-C (mm)	Frame section (mm)
1120	762	80 x 80 x 3 x 1300	1040	1040	1120	60 x 40 x 2
	962	80 x 80 x 3 x 1500	1040	1040	1120	60 x 40 x 2
	1162	80 x 80 x 3 x 1800	1040	1040	1120	60 x 40 x 2
	1362	80 x 80 x 3 x 2000	1040	1040	1120	60 x 40 x 2
	1762	80 x 80 x 3 x 2500	1040	1040	1120	60 x 40 x 2
<b>SINGLE SWING GATES (With base plates)</b>						
1120	762	80 x 80 x 3 x 808	1040	1040	1120	60 x 40 x 2
	962	80 x 80 x 3 x 1008	1040	1040	1120	60 x 40 x 2
	1162	80 x 80 x 3 x 1208	1040	1040	1120	60 x 40 x 2
	1362	80 x 80 x 3 x 1408	1040	1040	1120	60 x 40 x 2
	1762	80 x 80 x 3 x 1808	1040	1040	1120	60 x 40 x 2
<b>DOUBLE SWING GATES (Concrete)</b>						
Width (mm)	Height (mm)	Gate post (mm)	Distance between posts (mm)	Free passage (mm)	Center- center C-C (mm)	Frame section (mm)
3720	762	100 x 100 x 3 x 1300	3620	3620	3720	60 x 40 x 2
	962	100 x 100 x 3 x 1800	3620	3620	3720	60 x 40 x 2
	1162	100 x 100 x 3 x 2000	3620	3620	3720	60 x 40 x 2
	1362	100 x 100 x 3 x 2250	3620	3620	3720	60 x 40 x 2
	1762	100 x 100 x 3 x 2750	3620	3620	3720	60 x 40 x 2
<b>DOUBLE SWING GATES (With base plates)</b>						
3720	762	100 x 100 x 3 x 810	3620	3620	3720	60 x 40 x 2
	962	100 x 100 x 3 x 1010	3620	3620	3720	60 x 40 x 2
	1162	100 x 100 x 3 x 1210	3620	3620	3720	60 x 40 x 2
	1362	100 x 100 x 3 x 1410	3620	3620	3720	60 x 40 x 2
	1762	100 x 100 x 3 x 1810	3620	3620	3720	60 x 40 x 2

Page: 4 / 12  
Date: 09-12-2016  
Replaces edition:  
25-08-2015

Made up by:  
Werner Frans  
Group Quality Department

Approved by:  
Willy Naesens  
Group Quality Manager

Technical Data Sheet  
TDS-07-20

## Decofor® Swing Gate

**Table 3: Dimensions Decofor® Arco swing gates**

<b>SINGLE SWING GATES (Concrete)</b>						
Width (mm)	Height (mm)	Gate post (mm)	Distance between posts (mm)	Free passage (mm)	Center- center C-C (mm)	Frame section (mm)
1120	886	80 x 80 x 3 x 1300	1040	1040	1120	60 x 40 x 2
	1086	80 x 80 x 3 x 1500	1040	1040	1120	60 x 40 x 2
	1286	80 x 80 x 3 x 1800	1040	1040	1120	60 x 40 x 2
	1486	80 x 80 x 3 x 2000	1040	1040	1120	60 x 40 x 2
	1886	80 x 80 x 3 x 2500	1040	1040	1120	60 x 40 x 2
<b>SINGLE SWING GATES (With base plates)</b>						
1120	886	80 x 80 x 3 x 808	1040	1040	1120	60 x 40 x 2
	1086	80 x 80 x 3 x 1008	1040	1040	1120	60 x 40 x 2
	1286	80 x 80 x 3 x 1208	1040	1040	1120	60 x 40 x 2
	1486	80 x 80 x 3 x 1408	1040	1040	1120	60 x 40 x 2
	1886	80 x 80 x 3 x 1808	1040	1040	1120	60 x 40 x 2
<b>DOUBLE SWING GATES (Concrete)</b>						
Width (mm)	Height (mm)	Gate post (mm)	Distance between posts (mm)	Free passage (mm)	Center- center C-C (mm)	Frame section (mm)
3720	886	100 x 100 x 3 x 1300	3620	3620	3720	60 x 40 x 2
	1086	100 x 100 x 3 x 1800	3620	3620	3720	60 x 40 x 2
	1286	100 x 100 x 3 x 2000	3620	3620	3720	60 x 40 x 2
	1486	100 x 100 x 3 x 2250	3620	3620	3720	60 x 40 x 2
	1886	100 x 100 x 3 x 2750	3620	3620	3720	60 x 40 x 2
<b>DOUBLE SWING GATES (With base plates)</b>						
3720	886	100 x 100 x 3 x 810	3620	3620	3720	60 x 40 x 2
	1086	100 x 100 x 3 x 1010	3620	3620	3720	60 x 40 x 2
	1286	100 x 100 x 3 x 1210	3620	3620	3720	60 x 40 x 2
	1486	100 x 100 x 3 x 1410	3620	3620	3720	60 x 40 x 2
	1886	100 x 100 x 3 x 1810	3620	3620	3720	60 x 40 x 2

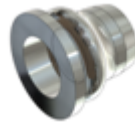
Page: 5 / 12  
Date: 09-12-2016  
Replaces edition:  
25-08-2015

Made up by:  
Werner Frans  
Group Quality Department

Approved by:  
Willy Naesens  
Group Quality Manager

## Decofor® Swing Gate

The posts are foreseen with stainless steel M6 inserts to connect the panels on the posts.



**Figure 2**

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

### 3.1.2 Panel

#### 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
Decofor® Swing Gate	7,50 ± 0,05	8,0 ± 0,35	5,50 ± 0,04	6,0 ± 0,35

#### 3.1.2.2 Tensile strength of the wires

Horizontal and vertical wires: Min. 500 N/mm<sup>2</sup>.

#### 3.1.2.3 Mesh sizes

Distance between the horizontal wires: 200 ± 4,0 mm

Distance between the vertical wires : 65 ± 3,0 mm

The tolerances on the meshes are in accordance with EN 10223-7.

#### 3.1.2.4 Weld shear strength

Welds have a shear strength not less than 4kN.

## Decofor® Swing Gate

### 3.1.2.5 Panel dimensions

Height of the panel: See technical drawing.  
 Tolerance on the panel height:  $\pm 2$  mm

Width of the panel: See technical drawing.  
 Tolerance on the panel width:  $\pm 2$  mm

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

## 4 Coating

### 4.1 Metallic coating

Wing with welded infill panel and posts are hot dip galvanized according ISO 1461.

Article and its thickness	Local coating thickness (minimum) <sup>a</sup>	Local coating mass (minimum) <sup>b</sup>	Mean coating thickness (minimum) <sup>c</sup>	Mean coating mass (minimum) <sup>b</sup>
	$\mu\text{m}$	$\text{g}/\text{m}^2$	$\mu\text{m}$	$\text{g}/\text{m}^2$
Steel > 6 mm	70	505	85	610
Steel > 3 mm to $\leq$ 6 mm	55	395	70	505
Steel $\geq$ 1,5 mm to $\leq$ 3 mm	45	325	55	395
Steel < 1,5 mm	35	250	45	325
Castings $\geq$ 6 mm	70	505	80	575
Castings < 6 mm	60	430	70	505

An excellent corrosion protection is obtained through the thick layer of zinc covering the entire surface, including the cut edges and the welds of the fabrication. Inherent to this process is the possible appearance of some visual surface roughness.

Technical Data Sheet  
TDS-07-20

## Decofor® Swing Gate

### 4.2 Polyester coating

#### Thickness polyester coating:

The total layer is minimum 60 µm thick.

The polyester thickness is the average of 10 measurements done over 1 gate wing / post.

**Colour:** Green RAL 6005.

Other standard colours are available and can be found in the technical data sheet TDS-99-03: Polyester coating.

Non-standard colours: 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  $30^\circ \pm 5^\circ$ . 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:

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.

Page: 8 / 12  
Date: 09-12-2016  
Replaces edition:  
25-08-2015

Made up by:  
Werner Frans  
Group Quality Department

Approved by:  
Willy Naesens  
Group Quality Manager



Technical Data Sheet  
TDS-07-20

## Decofor® Swing Gate

### 5 Accessories

#### 5.1 Hinges

##### Hingis:

Hinges are interchangeable: M16.

The polyester coated parts which are welded to the frame and posts are made out of bright steel and afterwards hot dip galvanized in accordance with ISO 1461.

The hinges allow the gate leaves to open up to 180° in the opening direction.



**Figure 3**

#### 5.2 Ground bolt

##### Ground bolt:

For double swing gates, the ground bolt is mounted by means of a "plug connection" which allows invisible installation.

The ground bolt is made out of construction steel and afterwards hot dip galvanized in accordance with ISO 1461.

The housing is made from aluminium and afterwards polyester coated in the colour of the gate.



**Figure 4**

Page: 9 / 12  
Date: 09-12-2016  
Replaces edition:  
25-08-2015

Made up by:  
Werner Frans  
Group Quality Department

Approved by:  
Willy Naesens  
Group Quality Manager

Technical Data Sheet  
TDS-07-20

## Decofor® Swing Gate

### 5.3 Lock System

**Lock system:**

The lock is not adjustable, type build-in.

All metal parts of the lock system are made out of stainless steel or coated steel to assure good corrosion resistance.



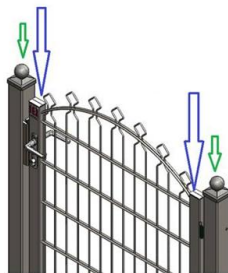
**Figure 5**

### 5.4 Caps

**Post cap:**

On each gate post there is an aluminium post cap mounted. The post cap is glued after coating in the colour of the gate frame on the gate post. (Green arrows)

On top of the gate frame, two aluminium caps are mounted in the colour of the gate frame. (Blue arrows)



**Figure 6**

Page: 10 / 12  
Date: 09-12-2016  
Replaces edition:  
25-08-2015

Made up by:  
Werner Frans  
Group Quality Department

Approved by:  
Willy Naesens  
Group Quality Manager

*The information and data given are typical for the product described. However technical changes are possible without any notice.*

Technical Data Sheet  
TDS-07-20

## Decofor® Swing Gate

### 6 Packaging

Each gate is wrapped with shrink foil and separately packed on a wooden pallet.  
See picture below.



**Picture 1**

Each gate is delivered with a separate accessory box.

Each gate is foreseen with a product identification label, mentioning: See picture 2

- Production order number
- Sapcode
- Description gate type
- Colour
- Quantity

Page: 11 / 12  
Date: 09-12-2016  
Replaces edition:  
25-08-2015

Made up by:  
Werner Frans  
Group Quality Department

Approved by:  
Willy Naesens  
Group Quality Manager

Technical Data Sheet  
TDS-07-20

## Decofor® Swing Gate



**Picture 2: Position of the product identification label**

## 7 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-011. 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>

Page: 12 / 12  
Date: 09-12-2016  
Replaces edition:  
25-08-2015

Made up by:  
Werner Frans  
Group Quality Department

Approved by:  
Willy Naesens  
Group Quality Manager