

Tempofor® F2 "Eco"**1 Scope**

The Tempofor® F2 Eco panel, is a solid welded construction of horizontal and vertical round tubes and welded mesh as infill panel.

The horizontal and vertical tubes are welded together in the 4 corners.

The infill is a spot-welded mesh made of galvanized low-carbon steel wire and each wire is welded to the horizontal respectively vertical round steel tubes.

This type of panel has a barb of about 40 mm measured from the center of the horizontal tube until the end of the vertical wire.

The nominal height of the panel is 2 m.

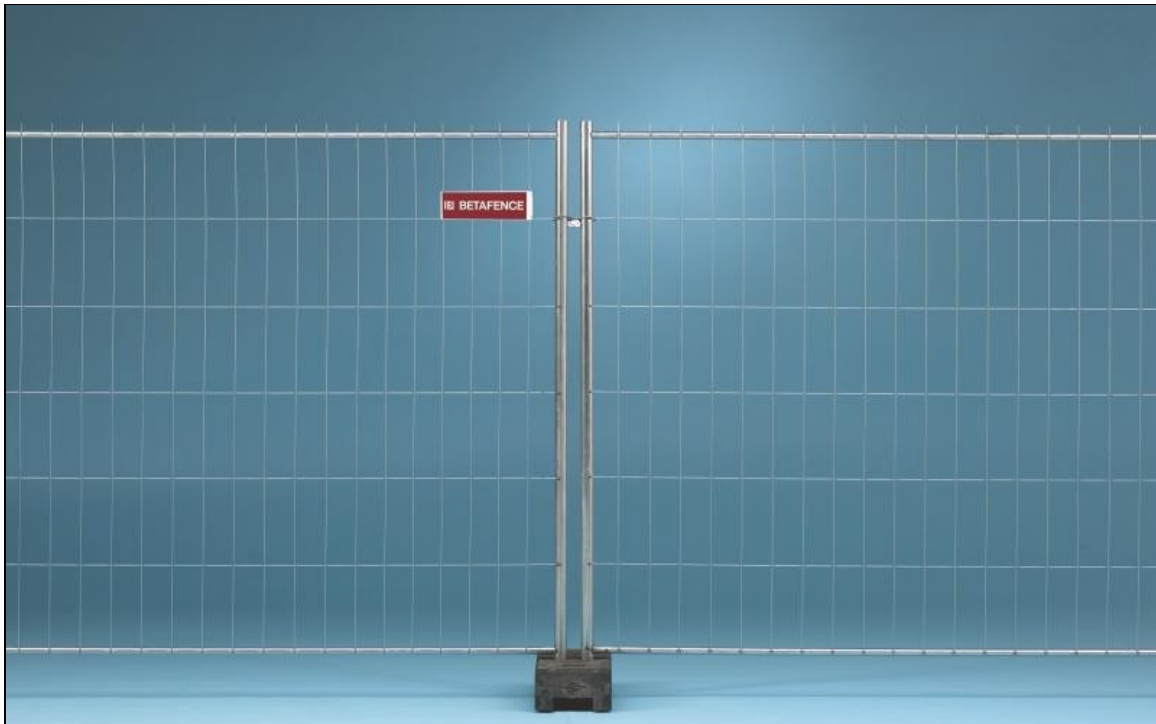


Figure 1: Tempofor® F2 Eco panel with barb on top

Tempofor® F2 "Eco"**1.1 Normative references**

- ISO 16120-2: Non-alloy steel wire rod for conversion to wire - Part 2: specific requirements for general purpose wire rod.
- EN 10346: Continuously hot-dip coated strip and sheet of structural steels - Technical delivery conditions.

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 to 0,01 mm.
- Mesh sizes: See figure 2
The meshes are measured from centre to centre of the wires.
- Width of a panel (W): Distance measured between the centres of the vertical posts.
- Height of a panel (H): Distance measured between both ends of the vertical post.

2 Raw material**2.1 Wire rod**

Chemical composition:

See table 1:

Table 1 : Chemical composition					
Element	C	Si	Mn	P	S
%	≤ 0,10	≤ 0,30	0,30 - 0,60	≤ 0,035	≤ 0,035

The chemical composition is in accordance with ISO 16120-2.

The designation of the wire rod is C9D.

Tempofor® F2 "Eco"

2.2 Tube

Chemical composition:

See table 2:

Table 2: Chemical composition					
Element	C	Si	Mn	P	S
%	≤ 0.20	≤ 0.60	≤ 1.70	≤ 0.10	≤ 0.045

The steel is in accordance with the European Standard EN 10346.

The designation of the steel is: S250GD Z100.

3 Properties

3.1 Welded mesh infill

3.1.1 Wire diameter and tolerances

See table 3 :

Table 3: Wire dimensions and tolerances	
Wire diameter and tolerances (mm)	
Vertical	Horizontal
3,40 ± 0,10	3,80 ± 0,10

3.1.2 Mesh spacing

Mesh spacing is measured from centre to centre, wire or tube.

Distance between the vertical wires: 100 ± 5 mm

Distance between the horizontal wires: 5 x 300 + 280, tolerance ± 5 mm.

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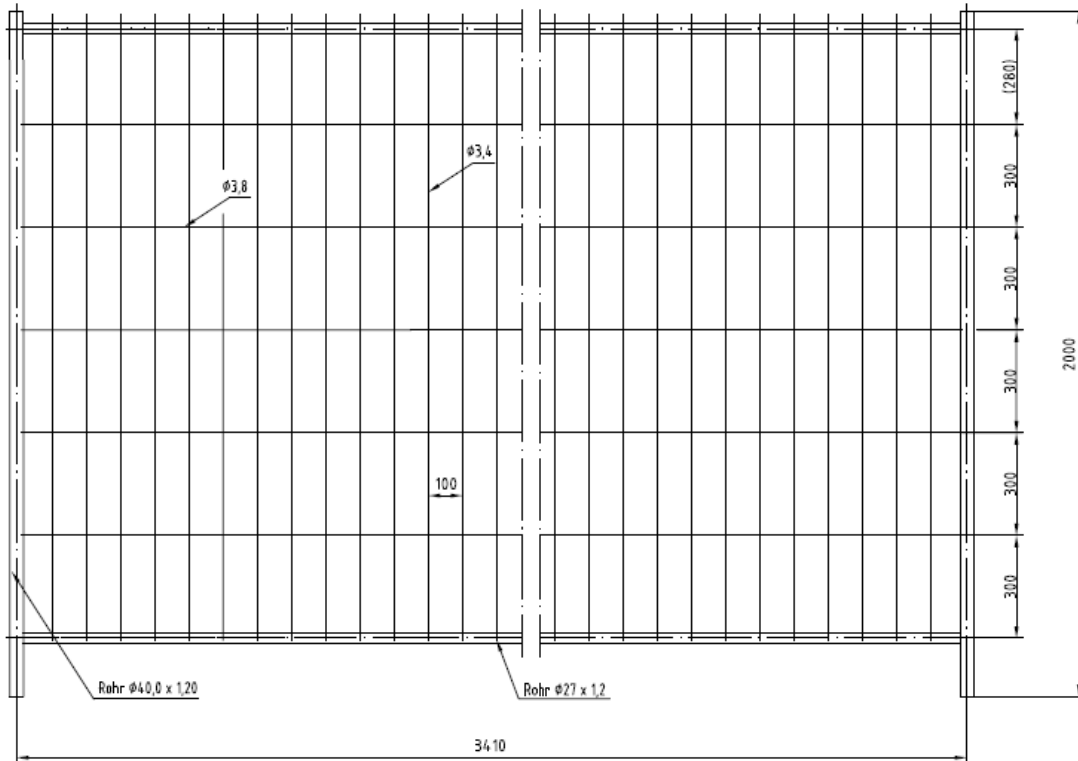


Figure 2

3.1.3 Tensile strength

Tensile strength of the vertical and horizontal wires: Min. 550 N/mm²

3.1.4 Weld shear strength

The average weld shear strength of the wires and of the wires at the frame will be not less than 2496 N (= 50% of the breaking load of the vertical wire).

3.1.5 Metallic coating

The vertical and horizontal wires have a zinc coating weight of min. 25 g/m²

Page : 4 / 9 DATE : 17/03/2014 Replaces edition: 23/01/2013	Made up by: Werner Frans Group Quality Department	Approved by: Klaus Brooren Quality Manager
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Tempofor® F2 "Eco"
3.2 Tube
3.2.1 Tube dimensions and tolerances

See table 4:

Table 4: Dimensions and tolerances tubes (mm)					
Vertical tube			Horizontal tube		
Diameter (mm)	Thickness (mm)	Height (mm)	Diameter (mm)	Thickness (mm)	Width (mm)
40,0 ± 0,20	1,2 ± 0,15	2000 ± 10	27,0 ± 0,20	1,2 ± 0,15	3410 ± 10

Note:

Other tube diameters are possible in agreement with the producing plant.

3.2.2 Mechanical characteristics

Tensile strength: Min. 350 N/mm²

Yield strength: Min. 220 N/mm²

3.2.3 Weld shear strength

The average weld shear strength, tube to tube shall be min 15 KN.

3.2.4 Metallic coating

Minimum 100 g/m², double side measured as specified in EN 10346. (Z100)

Page : 5 / 9 DATE : 17/03/2014 Replaces edition: 23/01/2013	Made up by: Werner Frans Group Quality Department	Approved by: Klaus Brooren Quality Manager
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Tempofor® F2 "Eco"**3.3 Dimension of the panel**

Standard width: 3410 ±10 mm, measured centre to centre of the vertical posts.
This width corresponds with a distance of 3500 mm between the centers of 2 consecutive blocks.

Standard height:

The height is specified as the overall height of the vertical tubes: 2000 mm.

Tolerance: ± 10 mm

Note:

Intermediate or infill panels, width 2200 mm and gates with width 1200 mm are available on request.

4 Packaging

The panels are packed in bundles of 2 x 35 panels.

In total 70 panels are packed together.

Each panel can have a "Betafence" or specific customer tag (See Figure 1).

Tempofor® F2 "Eco"**5 Installation of the F panels.****5.1 Connection system**

Panels are standard with or without out connections.

Other different connection systems are possible according to the possibilities of the producing plant.

Below some connection systems which are possible:

- Wire loop
- Adjustable brackets with nuts and bolts
- Eye and hook

All metallic parts are galvanized.

Sapcode	Connection systems	Barbs
7038311	mLa (Adjustable bracket)	With
7038407	H+Ö (Hook and eye)	Without
7038405	m.Bügel (Wire loop)	With
7038406	oLa (Without)	With

Connection with "wire loop":



Technical Data Sheet
TDS-06-50

Tempofor® F2 "Eco"

Connection with "adjustable bracket":



Connection with "eye and hook":



Types with security connectors for a durable and secure connection are available on request:



Page : 8 / 9
DATE : 17/03/2014
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Group Quality Department

Approved by:
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Quality Manager

Technical Data Sheet
TDS-06-50

Tempofor® F2 "Eco"

5.2 *Blocks used to install the panels*

The blocks used for this type of Tempofor® panel can be found in TDS-06-69 available on request.

Page : 9 / 9
DATE : 17/03/2014
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Group Quality Department

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Quality Manager