

Technical Data Sheet
TDS-04-41

Nylofor® 2D Super XL panel

1 Scope

This technical data sheet specifies requirements for galvanised steel wire welded and subsequently polyester coated mesh panels for fencing. The panel is reinforced by means of a horizontal double round wire at both sides of the vertical one. See figure 1



Figure 1

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

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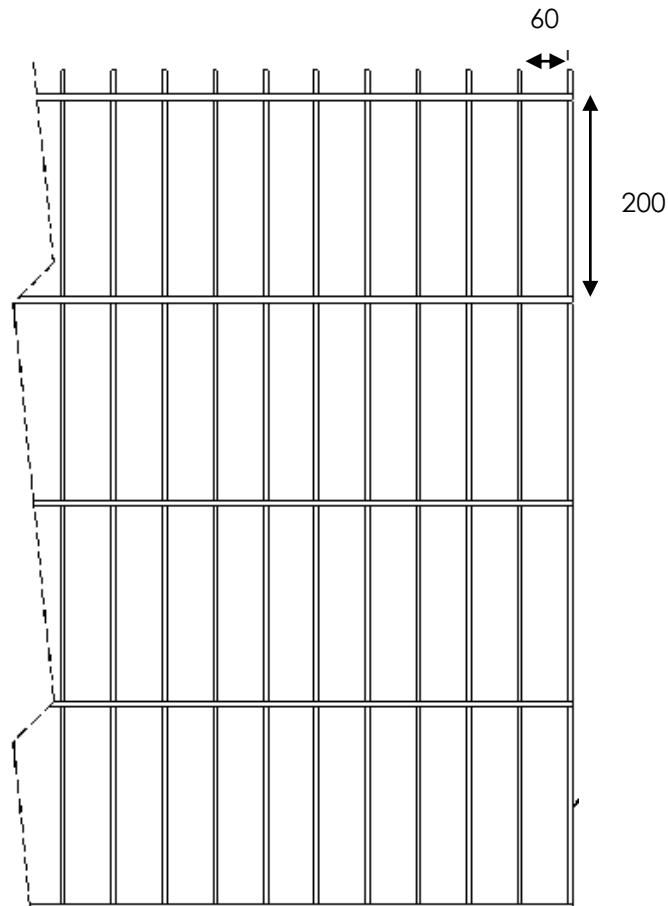


Figure 2

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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 1179 : Zinc and zinc alloys – primary zinc.
- 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.
- Line wires: The wires running in the longitudinal direction of the mesh.
- Cross wires: The wires running in the traverse direction of the mesh.

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2 Raw material

2.1 Wire Rod

Chemical composition: See table 1

Table 1 : Chemical composition	
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 or C7D – ISO 16120-2.

2.2 Zinc (Zinc used for galvanisation bath)

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

2.3 Polyester

The polyester is free of lead and Cadmium.

3 Properties

Panels are fabricated by electrical resistance welding of zinc coated steel wires and are subsequently polyester coated.

3.1 Wire diameter and tolerances

See table 2:

Table 2: Wire diameters and tolerances				
	Horizontal wire (mm)		Vertical wire (mm)	
	Core wire	Polyester coated	Core wire	Polyester coated
Nylofor® 2D Super XL	7,50 ± 0,05	8,0 ± 0,35	5,50 ± 0,04	6,0 ± 0,35

3.2 Tensile strength of the wire

Vertical and horizontal wires: Min. 500 N/mm².

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3.3 Mesh dimensions and tolerances

See table 3:

Table 3 : Mesh dimensions and tolerances	
Mesh Sizes (mm)	Nylofor® 2D Super XL
Distance between the horizontal wires	200 ± 4,0 mm
Distance between the vertical wires	60 ± 3,0 mm

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

3.4 Weld shear strength

Weld shear strength is tested on four welds selected at random from one transverse wire of the panel.

The minimum average weld shear strength value meets the required 50% of the breaking strength of the wire as per EN 10223-7.

3.5 Barbs

Nylofor® 2D Super XL panels have a barb of 30 mm ± 2 mm at the topside of the panel.

3.6 Overhangs

The overhang of the horizontal wires shall be not more than 3 mm.
The short overhang of the vertical wires is max. 3 mm.

3.7 Dimensions of the Panels

Overall height of the panel: See table 4.

Tolerance on the height: ± 2 mm.

Width of the panel: 3000 mm ± 3 mm. (Measured centre – centre)

4 Coating

4.1 Metallic coating

The wires are galvanised and the min. zinc weight for the horizontal and vertical wires is 30 g/m².

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4.2 Polyester coating

Thickness polyester coating:

The total layer is minimum 100 µm thick.

The polyester thickness – as well as the coated wire diameter dimension – is the average of 10 measurements done over 1 panel.

In corrosive environments, higher minimum coating thickness is recommended.
Typical value is 150 µm (Always in agreement between buyer and seller).

Colour:

Standard colours are RAL 6005 and RAL 7016

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 of the polyester:

Make a scratch in the longitudinal direction of the wire, by means of a hard metal pointed graving tool, penetrating through the metal. The length of the scratch will be about 50 mm. The coating shall not be able to be lifted from the metal by more than 5 mm.

Resistance of the polyester to salt spray

Make a scratch in the longitudinal direction of the wire, by means of a hard metal pointed graving tool, penetrating through the metal. The length of the scribe will be about 50 mm. Test in accordance with ISO 9227.

There shall be, after 1000 h salt spray, no corrosion beneath the polyester or loss of adhesion in excess of 10 mm from the scratch.

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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**Technical Data Sheet
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Panels are delivered on a wooden pallet, protected by shrink foil.

Number of panels per pallet: See table 4.

A label is stuck on the pallet stating mesh size, width and height of the panel.

Overall height of the panel with barb (mm)	Height of the panel without barb (Measured C-C) (mm)	Number of panels per pallet (1)	Sapcode RAL 6005	Sapcode RAL 7016
1830	1800	30	7060170	7060173
2030	2000	30	7060171	7060175
2430	2400	30	7060172	7060176

(1) The number of Nylofor® 2D Super XL panels shall change in the near future from 30 to 25 panels per pallet. New Sapcodes will be created when this happens.

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