Technical Data Sheet TDS-04-15

Nylofor® F

1 Scope

Nylofor[®] F is a spot welded mesh made out of galvanized low carbon steel wire. The panels are polyester coated after welding.

The horizontal wires are rectangular, the vertical ones are round. The vertical wires have a barb at one side of the panel (see fig. 1).





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1.1 Normative References

- EN 10016-2: Non-alloy steel rod for drawing and/or cold rolling,
- EN 10218-2: Steel wire and wire products General Part 2: Wire dimensions and tolerances,
- EN 10223-7: Steel wire and wire products for fences Part 7: Steel wire welded panels for fencing,
- ISO 1461: Hot dip galvanized coatings on fabricated iron and steel articles Specifications and test methods.
- EN 1179: Zinc and zinc alloys primary zinc
- ISO 9227: Corrosion tests in artificial atmospheres; salt spray tests.

1.2 Definitions

- Nominal wire dimensions: the dimensions in mm to designate the wire.
- Real wire dimensions:
 - for round wire: 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,
 - for rectangular shaped wire: the measurements are carried out on a straight piece of wire by means of a micrometer accurate to 0,01 mm.

2 Raw material

2.1 Wire Rod

See table 1.

Table 1: Chemical composition (1)		
Element	%	
С	≤ 0 , 10	
Si	≤ 0 , 30	
Mn	≤ 0,60	
Р	≤ 0,035	
S	≤ 0 , 035	

⁽¹⁾ In accordance with EN 10016-2 C9D.

2.2 Zinc

The zinc used shall be of minimum 98,5% purity.

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2.3 Polyester

Free of lead and Cadmium. The standard colours are:

- Green : Ral 6005,
- White : Ral 9010. Non-standard colours: on request.

3 Properties

3.1 Diameters & Tolerances

See figure 2.

Vertical wires: Polyester coated wire diameter: 5.00 ± 0.20 mm Horizontal profile: Polyester coated dimensions: 6.00 ± 0.20 mm x 15.00 ± 0.25 mm





3.2 Tensile Strength

Tensile strength vertical wire: 550-750 N/mm² Tensile strength flat horizontal profile: 600 – 800 N/mm²

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3.3 Mesh Sizes and Tolerances

Mesh sizes:

Distance between the horizontal wires $: (200 \pm 2,0) \text{ mm.}$ Distance between the vertical wires $: (50 \pm 2,0) \text{ mm.}$

The vertical wires have a barb of 27 mm on one side of the panel (see fig.1).

3.4 Panel Dimensions and Tolerances

Height of the panel: table 2 - tolerance on the height : \pm 2 mm. Width of the panel: 2500 mm \pm 2 mm, measured from centre to centre, 2507 mm \pm 3 mm, as overall width.

Table 2: Dimensions of the panel and tolerances		
Dimensions of the panel <i>W x H</i>	Weight of the panel	Gross weight of the forwarding unit
mm	kg	kg
2500 x 630	11,430	± 490
2500 x 1030	17,800	± 754
2500 x 1230	20,980	± 885
2500 x 1430	24,160	± 1014
2500 x 1630	27,350	± 1138
2500 x 1830	30,530	± 1266
2500 x 2030	33,710	± 1400
2500 x 2230	36,890	± 1530
2500 x 2430	40,070	± 1660

3.5 Weld shear strength

The average weld shear strength shall not be less than 50% of the breaking strength of the vertical wire.

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3.6 Coating

3.6.1 Metallic coating

The wires are galvanised and the min. zinc weight for the horizontal and vertical wires is 30 $g/m^2.$

3.6.2 Organic coating

The panels are after welding subsequently polyester coated The layer is minimum 100 μm thick. The minimum is the average of 10 measurements done on 1 panel.

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 50mm. 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 50mm. Test in accordance with ISO 9227. After 720 h there shall be no corrosion beneath the polyester layer or loss of adhesion in excess of 5 mm from the scratch and no signs of blistering, cracking or crazing on any part of the specimen.

4 Packaging

40 panels are delivered on a four-way pallet, type one-way, protected by shrink foil. The panels are delivered on pallets, protected by stretch foil, 40 panels per pallet or other packaging in agreement with the supplier.

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