

# Declaration of Performance

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## Round Wire Nails

Material - Carbon Steel

Head Type - Flat

Nail Diameter (mm) - 2.65, 3.35, 3.75, 4.50, 5.60, 6.00



We hereby declare these designated products have performed initial type testing under system 3, Annex V of the regulation (EU) no. 305/2011 (Construction Products Regulation), with the reference to the harmonised European standard (hEN) BS EN 14592:2008+A1:2012 (Timber structures - Dowel type fasteners - Requirements) for screws intended for the use in "load bearing timber structures" and produced the calculation/test reports as attached;

The initial type testing has been carried out by independent notified body;  
Strojirensky Zkusebni Ustav, NB # 1015, Hudcova 424/56B, 621 00 Brno-Medlanky, Czechia

Certificate Number: E30-20417-16, E-30-20419-16 to E-30-20421-16, E-30-20424-16, E-30-20425-16

Test Report Number: No. 30-10775/3, 30-10775/5 to 30-10775/7, 30-10775/10, 30-10775/11

Factory Process Control (FPC) has been established by the factory.

This declaration is valid until there is a significant change in the product and declared characteristics.  
ie. raw material or change in production process.

This declaration is the responsibility of the importer ; T.I.Midwood & Co. Ltd.

Simon Midwood

Managing Director

TIMCO House  
2016

2016

Name

Position

Signature

Location &amp; Date

Test Year

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## Round Wire Nails Flat Head - Ø2.65mm

### Material & Geometry

Material	Carbon Steel
Diameter (mm)	2.65
Head area (mm <sup>2</sup> )	27.93
Point length (mm)	3.61

### Mechanical Strength & Stiffness

Characteristic yield moment $M_{y,k}$ at 45° [Nmm] in acc. to EN 409	2862
Characteristic withdrawal parameter (loading across the fibre) $f_{ax,k}$ [N/mm <sup>2</sup> ] in acc. to EN 1382 with density of wood $\rho_k = 350\text{kg/m}^3$	3.31
Characteristic withdrawal parameter (loading along the fibre) $f_{ax,k}$ [N/mm <sup>2</sup> ] in acc. to EN 1382 with density of wood $\rho_k = 350\text{kg/m}^3$	1.92
Characteristic head pull-through parameter $f_{tens,k}$ [N/mm <sup>2</sup> ] in acc. to EN 1383 with density of wood $\rho_k = 400\text{kg/m}^3$	27.17
Characteristic tensile capacity $f_{tens,k}$ [kN] in acc. to EN 1383	2.57

### Durability

Coating (Finish)	Without coating (Bright)
Corrosion protection	Service Class 1 acc. to EN 1995-1-1

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## Round Wire Nails Flat Head - Ø3.35mm

### Material & Geometry

Material	Carbon Steel
Diameter (mm)	3.35
Head area (mm <sup>2</sup> )	45.91
Point length (mm)	5.04

### Mechanical Strength & Stiffness

Characteristic yield moment $M_{y,k}$ at 45° [Nmm] in acc. to EN 409	5873
Characteristic withdrawal parameter (loading across the fibre) $f_{ax,k}$ [N/mm <sup>2</sup> ] in acc. to EN 1382 with density of wood $\rho_k = 350\text{kg/m}^3$	3.43
Characteristic withdrawal parameter (loading along the fibre) $f_{ax,k}$ [N/mm <sup>2</sup> ] in acc. to EN 1382 with density of wood $\rho_k = 350\text{kg/m}^3$	2.27
Characteristic head pull-through parameter $f_{tens,k}$ [N/mm <sup>2</sup> ] in acc. to EN 1383 with density of wood $\rho_k = 380\text{kg/m}^3$	25.14
Characteristic tensile capacity $f_{tens,k}$ [kN] in acc. to EN 1383	3.73

### Durability

Coating (Finish)	Without coating (Bright)
Corrosion protection	Service Class 1 acc. to EN 1995-1-1

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## Round Wire Nails Flat Head - Ø3.75mm

### Material & Geometry

Material	Carbon Steel
Diameter (mm)	3.75
Head area (mm <sup>2</sup> )	53.39
Point length (mm)	5.09

### Mechanical Strength & Stiffness

Characteristic yield moment $M_{y,k}$ at 45° [Nmm] in acc. to EN 409	7020
Characteristic withdrawal parameter (loading across the fibre) $f_{ax,k}$ [N/mm <sup>2</sup> ] in acc. to EN 1382 with density of wood $\rho_k = 350\text{kg/m}^3$	3.60
Characteristic withdrawal parameter (loading along the fibre) $f_{ax,k}$ [N/mm <sup>2</sup> ] in acc. to EN 1382 with density of wood $\rho_k = 350\text{kg/m}^3$	2.06
Characteristic head pull-through parameter $f_{tens,k}$ [N/mm <sup>2</sup> ] in acc. to EN 1383 with density of wood $\rho_k = 400\text{kg/m}^3$	24.91
Characteristic tensile capacity $f_{tens,k}$ [kN] in acc. to EN 1383	6.89

### Durability

Coating (Finish)	Without coating (Bright)
Corrosion protection	Service Class 1 acc. to EN 1995-1-1

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## Round Wire Nails Flat Head - Ø4.50mm

### Material & Geometry

Material	Carbon Steel
Diameter (mm)	4.50
Head area (mm <sup>2</sup> )	66.36
Point length (mm)	7.84

### Mechanical Strength & Stiffness

Characteristic yield moment $M_{y,k}$ at 45° [Nmm] in acc. to EN 409	12982
Characteristic withdrawal parameter (loading across the fibre) $f_{ax,k}$ [N/mm <sup>2</sup> ] in acc. to EN 1382 with density of wood $\rho_k = 350\text{kg/m}^3$	3.52
Characteristic withdrawal parameter (loading along the fibre) $f_{ax,k}$ [N/mm <sup>2</sup> ] in acc. to EN 1382 with density of wood $\rho_k = 350\text{kg/m}^3$	2.44
Characteristic head pull-through parameter $f_{tens,k}$ [N/mm <sup>2</sup> ] in acc. to EN 1383 with density of wood $\rho_k = 380\text{kg/m}^3$	23.64
Characteristic tensile capacity $f_{tens,k}$ [kN] in acc. to EN 1383	9.31

### Durability

Coating (Finish)	Without coating (Bright)
Corrosion protection	Service Class 1 acc. to EN 1995-1-1

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## Round Wire Nails Flat Head - Ø5.60mm

### Material & Geometry

Material	Carbon Steel
Diameter (mm)	5.60
Head area (mm <sup>2</sup> )	101.57
Point length (mm)	7.32

### Mechanical Strength & Stiffness

Characteristic yield moment $M_{y,k}$ at 45° [Nmm] in acc. to EN 409	29555
Characteristic withdrawal parameter (loading across the fibre) $f_{ax,k}$ [N/mm <sup>2</sup> ] in acc. to EN 1382 with density of wood $\rho_k = 350\text{kg/m}^3$	3.62
Characteristic withdrawal parameter (loading along the fibre) $f_{ax,k}$ [N/mm <sup>2</sup> ] in acc. to EN 1382 with density of wood $\rho_k = 350\text{kg/m}^3$	2.07
Characteristic head pull-through parameter $f_{tens,k}$ [N/mm <sup>2</sup> ] in acc. to EN 1383 with density of wood $\rho_k = 380\text{kg/m}^3$	20.51
Characteristic tensile capacity $f_{tens,k}$ [kN] in acc. to EN 1383	11.86

### Durability

Coating (Finish)	Without coating (Bright)
Corrosion protection	Service Class 1 acc. to EN 1995-1-1

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## Round Wire Nails Flat Head - Ø6.00mm

### Material & Geometry

Material	Carbon Steel
Diameter (mm)	6.00
Head area (mm <sup>2</sup> )	111.59
Point length (mm)	7.61

### Mechanical Strength & Stiffness

Characteristic yield moment $M_{y,k}$ at 45° [Nmm] in acc. to EN 409	31570
Characteristic withdrawal parameter (loading across the fibre) $f_{ax,k}$ [N/mm <sup>2</sup> ] in acc. to EN 1382 with density of wood $\rho_k = 350\text{kg/m}^3$	3.36
Characteristic withdrawal parameter (loading along the fibre) $f_{ax,k}$ [N/mm <sup>2</sup> ] in acc. to EN 1382 with density of wood $\rho_k = 350\text{kg/m}^3$	2.16
Characteristic head pull-through parameter $f_{tens,k}$ [N/mm <sup>2</sup> ] in acc. to EN 1383 with density of wood $\rho_k = 380\text{kg/m}^3$	22.31
Characteristic tensile capacity $f_{tens,k}$ [kN] in acc. to EN 1383	17.84

### Durability

Coating (Finish)	Without coating (Bright)
Corrosion protection	Service Class 1 acc. to EN 1995-1-1