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### **Declaration of Performance**

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## **Annular Ringshank Nails**



Material - Carbon Steel Head Type - Flat Nail Diameter (mm) - 2.00, 2.36, 2.65, 3.35, 3.75

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-Medlánky, Czechia

Certificate Number: E-30-20415-16 to E-30-20417-16, E-30-20419-16 to E-30-20420-16 Test Report Number: No. 30-10775/1 to 30-10775/3, 30-10775/5 to 30-10775/6

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.





Cert No: E-30-20415-16 Test Report No: 30-10775/1

# **Declaration of Performance**

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## **Annular Ringshank Nails**

Flat Head - Ø2.00mm

#### Material & Geometry

Material	Carbon Steel
Screw diameter (mm)	2.00
Head area (mm²)	20.88
Point length (mm)	2.62
Mechanical Strength & Stiffness	
Characteristic yield moment M <sub>y,k</sub> at 45° [Nmm] in acc. to EN 409	1061
Characteristic withdrawal parameter (loading across the fibre) $f_{ax,k}$ [N/mm <sup>2</sup> ] in acc. to EN 1382 with density of wood $\rho_k$ = 350kg/m <sup>3</sup>	9.91
Characteristic withdrawal parameter (loading along the fibre) $f_{ax,k}$ [N/mm²] in acc. to EN 1382 with density of wood $\rho_k$ = 350kg/m³	5.01
Characteristic head pull-through parameter $f_{tens,k}$ [N/mm <sup>2</sup> ] in acc. to EN 1383 with density of wood $\rho_k$ = 400kg/m <sup>3</sup>	27.63
Characteristic tensile capacity f <sub>tens,k</sub> [kN] in acc. to EN 1383	1.49

#### **Durability**

Coating (Finish) Without coating (Bright)



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### **Declaration of Performance**

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## **Annular Ringshank Nails**

Flat Head - Ø2.36mm

#### Material & Geometry

Material	Carbon Steel
Screw diameter (mm)	2.36
Head area (mm²)	31.51
Point length (mm)	3.14
Mechanical Strength & Stiffness	
Characteristic yield moment M <sub>y,k</sub> at 45° [Nmm] in acc. to EN 409	1853
Characteristic withdrawal parameter (loading across the fibre) $f_{ax,k}$ [N/mm²] in acc. to EN 1382 with density of wood $\rho_k$ = 350kg/m³	9.88
Characteristic withdrawal parameter (loading along the fibre) $f_{ax,k}$ [N/mm²] in acc. to EN 1382 with density of wood $\rho_k$ = 350kg/m³	4.70
Characteristic head pull-through parameter $f_{tens,k}$ [N/mm <sup>2</sup> ] in acc. to EN 1383 with density of wood $\rho_k$ = 400kg/m <sup>3</sup>	26.33
Characteristic tensile capacity f <sub>tens,k</sub> [kN] in acc. to EN 1383	1.81

#### **Durability**

Coating (Finish) Without coating (Bright)



Cert No: E-30-20417-16 Test Report No: 30-10775/3

# **Declaration of Performance**

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## **Annular Ringshank Nails**

Flat Head - Ø2.65mm

#### Material & Geometry

Material	Carbon Steel
Screw diameter (mm)	2.65
Head area (mm²)	32.60
Point length (mm)	3.61
Mechanical Strength & Stiffness	
Characteristic yield moment M <sub>y,k</sub> at 45° [Nmm] in acc. to EN 409	2591
Characteristic withdrawal parameter (loading across the fibre) $f_{ax,k}$ [N/mm²] in acc. to EN 1382 with density of wood $\rho_k$ = 350kg/m³	9.58
Characteristic withdrawal parameter (loading along the fibre) $f_{ax,k}$ [N/mm²] in acc. to EN 1382 with density of wood $\rho_k$ = 350kg/m³	4.53
Characteristic head pull-through parameter $f_{tens,k}$ [N/mm <sup>2</sup> ] in acc. to EN 1383 with density of wood $\rho_k$ = 400kg/m <sup>3</sup>	27.62
Characteristic tensile capacity f <sub>tens,k</sub> [kN] in acc. to EN 1383	2.78

#### **Durability**

Coating (Finish) Without coating (Bright)



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# **Declaration of Performance**

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## **Annular Ringshank Nails**

Flat Head - Ø3.35mm

#### Material & Geometry

Material	Carbon Steel
Screw diameter (mm)	3.35
Head area (mm²)	47.83
Point length (mm)	5.04
Mechanical Strength & Stiffness	
Characteristic yield moment M <sub>y,k</sub> at 45° [Nmm] in acc. to EN 409	5499
Characteristic withdrawal parameter (loading across the fibre) $f_{ax,k}$ [N/mm²] in acc. to EN 1382 with density of wood $\rho_k$ = 350kg/m³	7.52
Characteristic withdrawal parameter (loading along the fibre) $f_{ax,k}$ [N/mm²] in acc. to EN 1382 with density of wood $\rho_k$ = 350kg/m³	4.60
Characteristic head pull-through parameter $f_{tens,k}$ [N/mm <sup>2</sup> ] in acc. to EN 1383 with density of wood $\rho_k$ = 380kg/m <sup>3</sup>	25.22
Characteristic tensile capacity f <sub>tens,k</sub> [kN] in acc. to EN 1383	5.13

#### **Durability**

Coating (Finish) Without coating (Bright)



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### **Declaration of Performance**

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## **Annular Ringshank Nails**

Flat Head - Ø3.75mm

#### Material & Geometry

Material	Carbon Steel
Screw diameter (mm)	3.75
Head area (mm²)	50.97
Point length (mm)	5.09
Mechanical Strength & Stiffness	
Characteristic yield moment M <sub>y,k</sub> at 45° [Nmm] in acc. to EN 409	7966
Characteristic withdrawal parameter (loading across the fibre) $f_{ax,k}$ [N/mm²] in acc. to EN 1382 with density of wood $\rho_k$ = 350kg/m³	7.69
Characteristic withdrawal parameter (loading along the fibre) $f_{ax,k}$ [N/mm²] in acc. to EN 1382 with density of wood $\rho_k$ = 350kg/m³	4.71
Characteristic head pull-through parameter $f_{tens,k}$ [N/mm <sup>2</sup> ] in acc. to EN 1383 with density of wood $\rho_k$ = 380kg/m <sup>3</sup>	26.43
Characteristic tensile capacity f <sub>tens,k</sub> [kN] in acc. to EN 1383	6.69

#### **Durability**

Coating (Finish) Without coating (Bright)