

## **Declaration of Performance**

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## FIRMAHOLD Clipped Head Collated Nails

Material - Carbon Steel Head Type - D-head Nail Diameter (mm) - 2.8, 3.1

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; BM Trada, NB # 2389, Chilton House, Stocking Lane, Hughenden Valley, High Wycombe, HP14 4ND

Certificate Number: CPR-J-00107-20 & CPR-J-00108-20 Test Report Number: 30-14691/2/1/JD & 30-14691/3/JP

Factory Process Control (FPC) has been established by the factory and independently audited by TUV Rheinland UK in accordance with ISO9001.

This declaration of conformity 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: CPR-J-00107-20 Test Report No: 30-14691/2/1/JD

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### FIRMAHOLD Clipped Head Collated Nails

D-head - Ring Shank - Ø2.8mm

#### Material & Geometry

Material	Carbon Steel
Screw diameter (mm)	2.8
Head area (mm²)	27.92
Point length (mm)	2.42

#### **Mechanical Strength & Stiffness**

Characteristic yield moment My.k at 45° [Nmm] in acc. to EN 409	2351
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>	9.16
Characteristic withdrawal parameter (loading along the fibre) $f_{ax,k}$ [N/mm <sup>2</sup> ] in acc. to EN 1382 with density of wood $\rho_k$ = 350kg/m <sup>3</sup>	4.81
Characteristic head pull-through parameter $f_{tens,k}$ [N/mm <sup>2</sup> ] in acc. to EN 1383 with density of wood $\rho_k$ = 350kg/m <sup>3</sup>	23.95
Characteristic tensile capacity ftens,k [kN] in acc. to EN 1383	3.82

#### Durability

Coating (Finish)	Hot Dipped Galvanised coating
Corrosion protection	Service Class 3 acc. to EN 1995-1-1



Date: 09/07/2021

Cert No: E-30-20416-16 Test Report No: 30-14691/3/JP

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### FIRMAHOLD Clipped Head Collated Nails

D-head - Ring Shank - Ø3.1mm

#### Material & Geometry

Material	Carbon Steel
Screw diameter (mm)	3.1
Head area (mm²)	29.40
Point length (mm)	4.07

#### **Mechanical Strength & Stiffness**

Characteristic yield moment My.k at 45° [Nmm] in acc. to EN 409	3079
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>	8.71
Characteristic withdrawal parameter (loading along the fibre) $f_{ax,k}$ [N/mm <sup>2</sup> ] in acc. to EN 1382 with density of wood $\rho_k$ = 350kg/m <sup>3</sup>	5.59
Characteristic head pull-through parameter $f_{tens,k}$ [N/mm <sup>2</sup> ] in acc. to EN 1383 with density of wood $\rho_k$ = 350kg/m <sup>3</sup>	23.22
Characteristic tensile capacity ftens,k [kN] in acc. to EN 1383	4.54

#### Durability

Coating (Finish)	Hot Dipped Galvanised coating
Corrosion protection	Service Class 3 acc. to EN 1995-1-1



Date: 09/07/2021

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# Declaration of Performance

### FIRMAHOLD Clipped Head Collated Nails

D-head - Smooth Shank - Ø3.1mm

#### Material & Geometry

Material	Carbon Steel
Screw diameter (mm)	3.1
Head area (mm²)	29.40
Point length (mm)	4.07

#### **Mechanical Strength & Stiffness**

Characteristic yield moment My.k at 45° [Nmm] in acc. to EN 409	3141
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>	8.56
Characteristic withdrawal parameter (loading along the fibre) $f_{ax,k}$ [N/mm <sup>2</sup> ] in acc. to EN 1382 with density of wood $\rho_k$ = 350kg/m <sup>3</sup>	6.70
Characteristic head pull-through parameter $f_{tens,k}$ [N/mm <sup>2</sup> ] in acc. to EN 1383 with density of wood $\rho_k$ = 350kg/m <sup>3</sup>	23.22
Characteristic tensile capacity frems,k [kN] in acc. to EN 1383	4.68

#### Durability

Coating (Finish)	Hot Dipped Galvanised coating
Corrosion protection	Service Class 3 acc. to EN 1995-1-1