

LEDGERLOK®

DESIGN DATA SHEET FOR USE WITH BS5268-2

The permissible strength data in this design sheet was derived, using appropriate safety factors, from characteristic strength data determined in accordance with prEN14592

FEATURES

DESCRIPTION

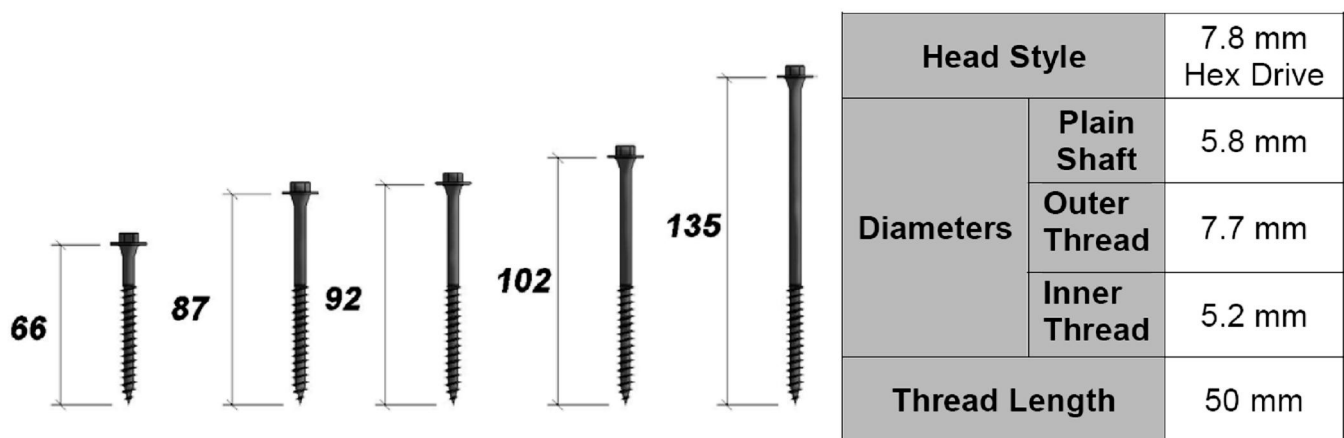
- The fasteners are made from carbon steel using a standard cold-forming process and are heat-treated
- The fasteners have a proprietary epoxy coating that provides corrosion protection while lowering installation torque

INSTALLATION

- **NO PRE-DRILLING IS REQUIRED**
- An oversized 15mm washer constrains countersinking, enabling accurate positioning of fastener
- Chamfering underside of head effectively eliminates snapping during installation

DIMENSIONS

LedgerLok fasteners are available in five lengths – 66mm, 87mm, 92mm, 102mm & 135mm



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Permissible withdrawal strengths

Long-term permissible withdrawal strengths of LedgerLok fasteners for the following wood-based materials:

Wood-based material	Permissible withdrawal strength (N/mm)	Permissible withdrawal strength (N) when full threaded length in member
C16 Timber	19	950
C24 Timber	26	1300
TR26 Timber	29	1450
All softwoods – end grain	13	650

The minimum pointside penetration for LedgerLok fasteners acting in withdrawal should be 35mm

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Permissible lateral load-carrying capacities

The permissible lateral load-carrying capacity of **LedgerLok** fasteners can be evaluated for any combination of wood member thickness using Annex G of BS5268-2, based on the following parameters:

- A screw diameter (d) of 5.8mm
- A design yield moment ($M_{y,d}$) of 19000 Nmm
- Load-duration modification factors of 1.00 for long-term, 1.12 for medium-term and 1.25 for short-term and very short-term load durations
- Design embedding strength ($f_{h,d}$) as detailed in the following table :

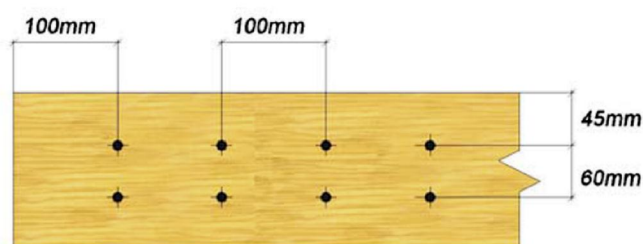
Wood-based material	$f_{h,d}$ (N/mm ²)
C16	14.6
C24	16.5
TR26	17.4

Lateral load-carrying capacities

Long-term permissible lateral load for a single **LedgerLok** fastener for common combinations of 2-member joints:

Thickness of headside member (mm)	Thickness of pointside member (mm)	Length of fastener (mm)	Long-term permissible lateral load-carrying capacity (kN) of 2-member joints made from:		
			C16 timber	C24 timber	TR26 timber
35	35	66	0.74	0.84	0.88
45	45	87	0.97	1.10	1.16
47	47	87	0.98	1.10	1.17
75	75	135	1.26	1.34	1.37

- The load may be acting either parallel or perpendicular to the grain
- **Minimum edge and end distances of 45mm and 100mm respectively**
- **Minimum spacing between fasteners perpendicular and parallel to the grain of 60mm and 100mm respectively**
- The permissible capacities in the above table are calculated using Annex G of BS 5268-2 based on the design input parameters given above and a minimum pointside penetration of 30mm



Always maintain minimum end, edge & fastener spacing distances



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