

# TIMBERLOK®

## 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

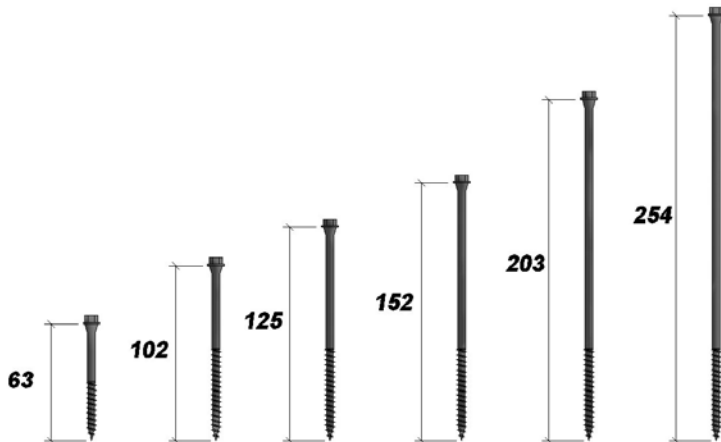
- The fasteners are made from carbon steel using a standard cold-forming process and are heat-treated
- The fasteners have a proprietary epoxy coating that provides corrosion protection while lowering installation torque

#### INSTALLATION

- **NO PRE-DRILLING IS REQUIRED**
- Chamfering underside of head effectively eliminates snapping during installation

### DIMENSIONS

TimberLok fasteners are available in five lengths – 63mm, 102mm, 125mm, 152mm, 203mm & 254mm



<b>Head Style</b>		7.8 mm Hex Drive
<b>Diameters</b>	<b>Plain Shaft</b>	4.8 mm
	<b>Outer Thread</b>	6.5 mm
	<b>Inner Thread</b>	4.4 mm
<b>Thread Length</b>		51* mm

\* except in the case of 63mm long fastener where the thread length is 31mm

### DESIGN DATA FOR USE WITH BS5268-2

#### Permissible withdrawal strengths

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

Wood-based material	Permissible withdrawal strength (N/mm)
C16 Timber	14
C24 Timber	21
TR26 Timber	24
All softwoods – end grain	10

The minimum pointside penetration for TimberLok fasteners acting in withdrawal should be 30mm

## DESIGN DATA FOR USE WITH BS5268-2

### Permissible lateral load-carrying capacities

The permissible lateral load-carrying capacity of TimberLok 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 4.8mm
- A design yield moment ( $M_{y,d}$ ) of 11300 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 :

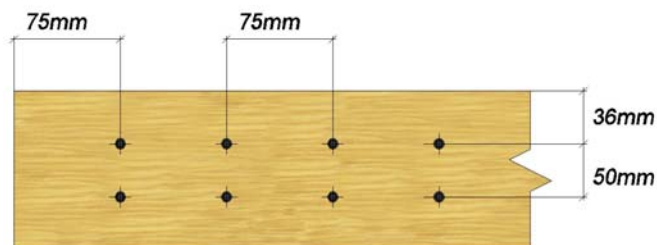
Wood-based material	$f_{h,d}$ (N/mm <sup>2</sup> )
C16	14.8
C24	16.7
TR26	17.6

### Lateral load-carrying capacities

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

Thickness of headside member (mm)	Thickness of pointside member (mm)	Length of fastener (mm)	Long-term lateral load-carrying capacity (kN) of 2-member joints made from:		
			C16 timber	C24 timber	TR26 timber
47	63	102	0.89	0.94	0.97
63	63	102	0.83	0.92	0.96
89	89	152	0.89	0.94	0.97

- The load may be acting either parallel or perpendicular to the grain
- **Minimum edge and end distances of 36mm and 75mm respectively**
- **Minimum spacing between fasteners perpendicular and parallel to the grain of 50mm and 75mm 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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