



Eurotec[®]

**SEISMIC PERFORMANCE
EUROTEC
WOOD CONSTRUCTION
SCREWS**

More than
20
YEARS
of quality

EuroTec Paneltwistec 8.0 mm and Topduo in the highest "earthquake class", S3

Fasteners may be assigned to "low-cycle ductility classes" for use in earthquake-prone areas. The classes are designated as S1, S2 or S3 in ascending order of "seismic performance".

To achieve this, the screws are bent at a specific angle alternately in up to 3 cycles.

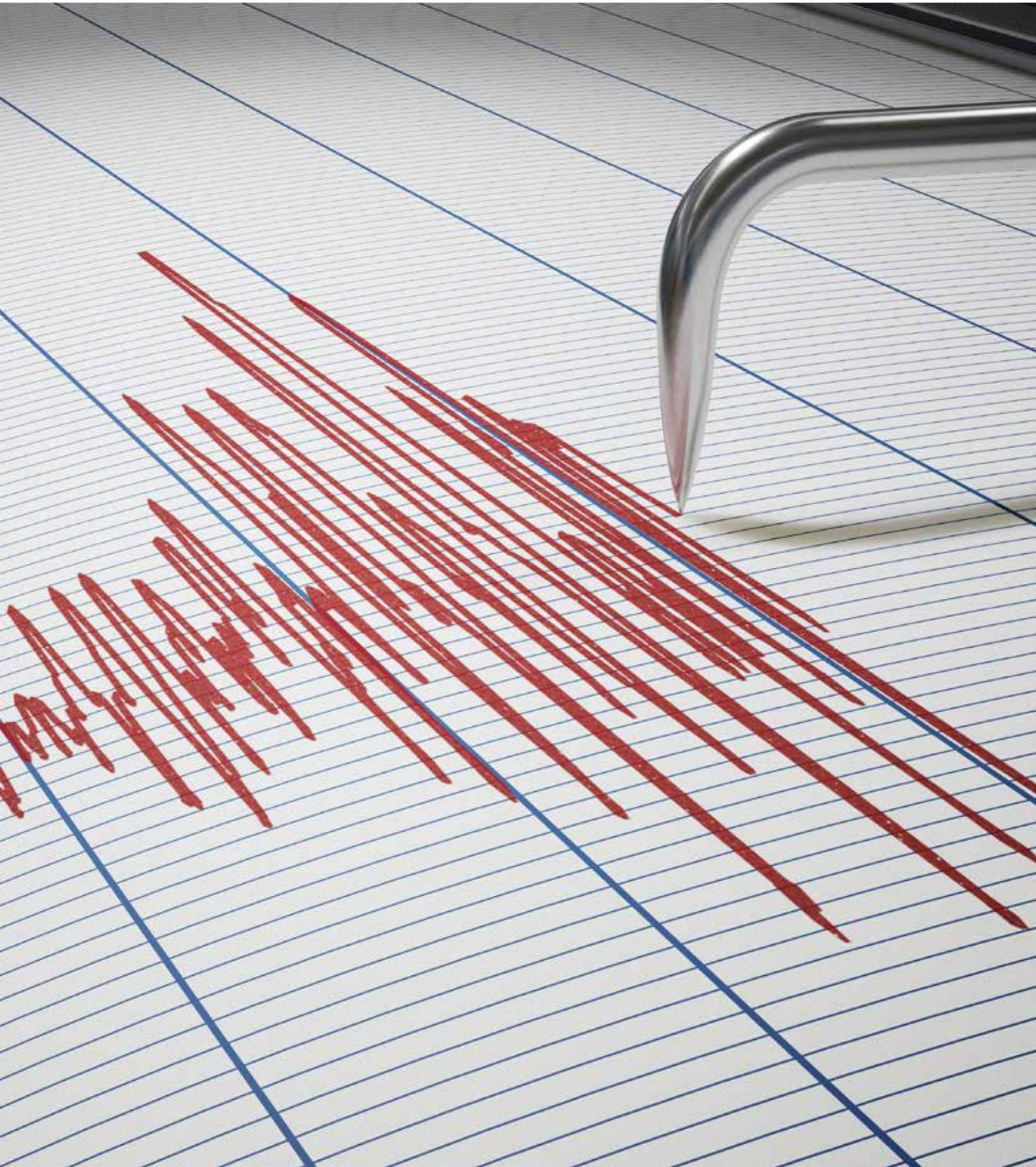
With each cycle, checks are performed to determine whether at least 80% of the mean flow torques of an unbent screw of the same type is still being achieved. If this is the case, the screws may be classified according to the respective ductility class.

This means the Eurotec wood construction screws pictured below featuring nominal diameters of 6.0 to 10.0 mm (carbon steel) and 5.0 and 6.0 mm (stainless steel A2/A4) have achieved the highest class, S3.

Despite their high strength these screws are ductile, meaning they are flexible enough to be bent backwards and forwards multiple times without failing due to becoming brittle. In the event of an earthquake, this increases the likelihood that, for example, a wood/wood connection would yield "softly" rather than failing suddenly. This may form the decisive factor when it comes to potential damage to life, limb and property.

a) The flow torque describes the resistance of the screw to bending; in other words, the 'bending stiffness'.

The specialist for fastening technology



ECO PT

Countersunk-head screw, blue galvanised



Hapatec Heli A4

Ornamental head screw, stainless steel A4



ECO PT

Flange button head screw, blue galvanised



Hobotec

Countersunk-head screw, blue galvanised



EcoTec A2

Countersunk-head screw, stainless steel A2



Hobotec

Countersunk-head screw, steel yellow zinc plated



EcoTec

Countersunk-head screw, blue galvanised



Paneltwistec A2

Countersunk-head screw, stainless steel A2



Hapatec Heli

Ornamental head screw, stainless steel A2



Paneltwistec A2

Flange button head screw, stainless steel A2



Paneltwistec 1000

Flange button head screw, special coated steel



Paneltwistec

Countersunk-head screw, steel yellow zinc plated



Paneltwistec A4

Countersunk-head screw, stainless steel A4



Paneltwistec

Flange button head screw, steel yellow zinc plated



Paneltwistec AG

Countersunk-head screw, blue galvanised



Topduo

Flange button head screw, blue galvanised



Paneltwistec AG

Flange button head screw, blue galvanised



Topduo

Ornamental head screw, blue galvanised



SawTec

Ornamental head screw, blue galvanised



Excerpt from the test report of the Karlsruhe Institute of Technology (KIT)

Torque load capacity in Nm Paneltwistec Countersunk head AG Ø6,0 x 120 mm

No.	Testing S3		Criterion 1		Criterion 2	
	Monotone	Cyclical	$M_{0,8}$	Compliant	α_{max}	Compliant
1	15,2	13,6	12,0	Yes	45°	Yes
2	15,0	12,7		Yes		Yes
3	14,8	13,4		Yes		Yes
Mean value	15,0	13,2				

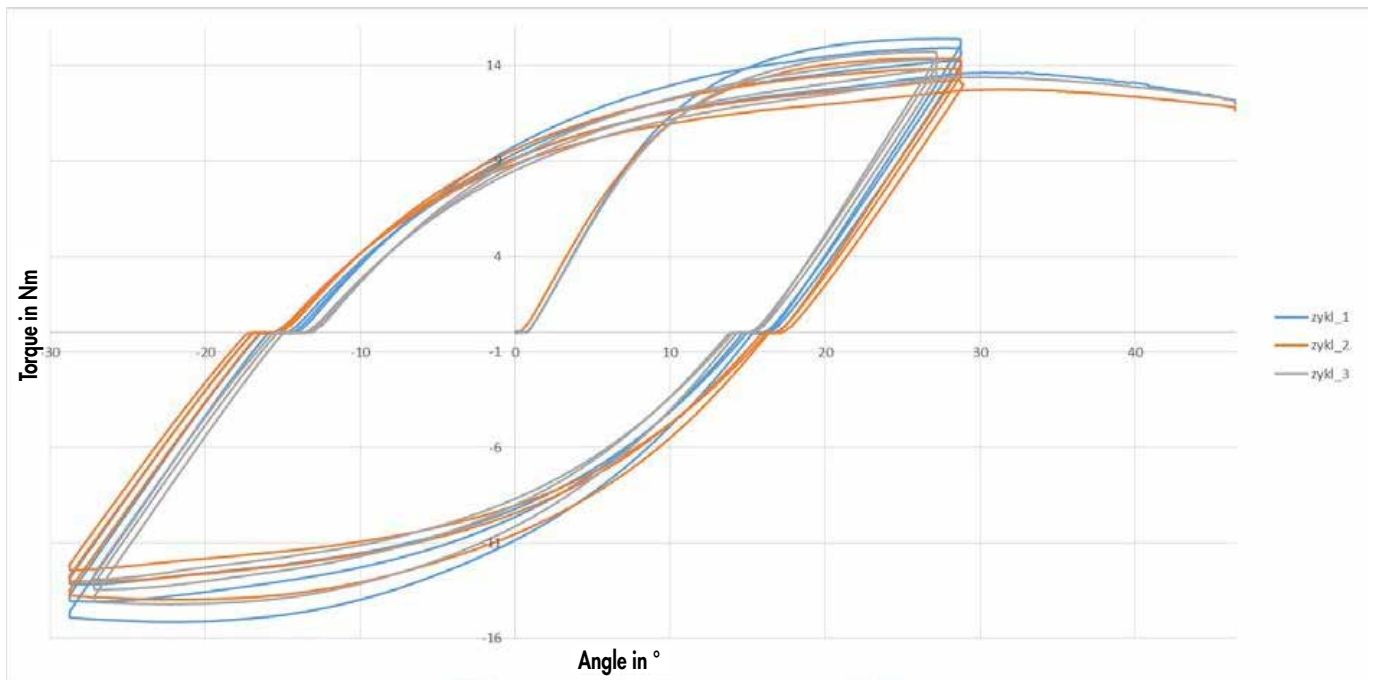
$M_{0,8}$ = 0.8 x mean value of the monotonic test

Torque load capacity in Nm, Paneltwistec Countersunk head AG Ø8,0 x 160 mm

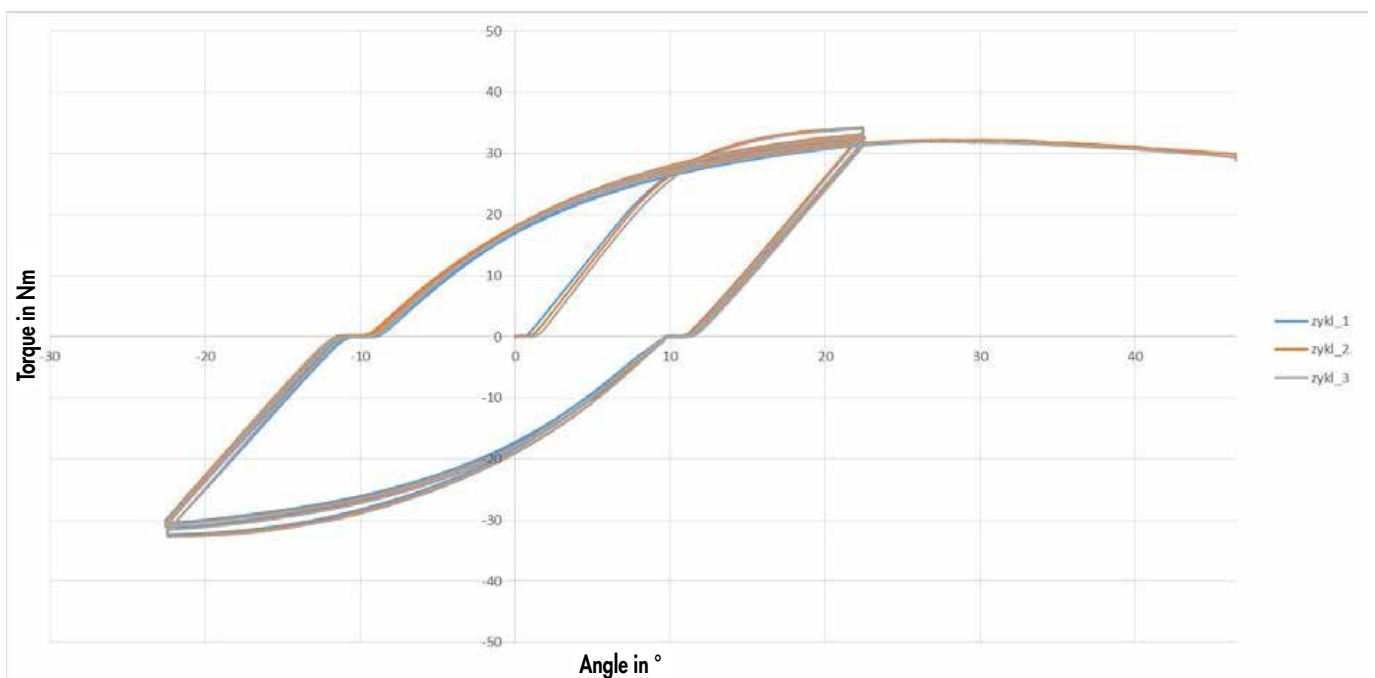
No.	Testing S3		Criterion 1		Criterion 2	
	Monotone	Cyclical	$M_{0,8}$	Compliant	α_{max}	Compliant
1	33,0	31,9	26,6	Yes	45°	Yes
2	33,4	32,3		Yes		Yes
3	33,4	31,9		Yes		Yes
Mean value	33,3	32,0				

$M_{0,8}$ = 0.8 x mean value of the monotonic test

Load displacement diagram
Paneltwistec Countersunk head AG Ø6,0 x 120 mm



Load displacement diagram
Paneltwistec Countersunk head AG Ø8,0 x 160 mm



The specialist for fastening technology



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