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## European Technical Assessment

**ETA 16/0156**  
of 26/07/2019

### General Part

#### Technical Assessment Body issuing the European Technical Assessment

Technický a zkušební ústav stavební Praha, s.p.

<b>Trade name of the construction product</b>	DOMAX CS, CT
<b>Product family to which the construction product belongs</b>	Product area code: 13 Screws for use in timber constructions
<b>Manufacturer</b>	DOMAX Sp. z o.o. Aleja Parku Krajobrazowego 109 Łężyce PL-84-207 Koleczkowo Republic of Poland
<b>Manufacturing plant</b>	Plant 1 Plant 2
<b>This European Technical Assessment contains</b>	16 pages including 4 Annexes, which form an integral part of this European Technical Assessment
<b>This European Technical Assessment is issued in accordance with Regulation (EU) No 305/2011, on the basis of</b>	EAD 130118-01-0603, Screws and threaded rods for use in timber constructions

Translations of this European Technical Assessment in other languages shall fully correspond to the original issued document and should be identified as such.

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## 1 Technical description of the product

DOMAX screws with a mark CS and CT are self-tapping screws made from hardened carbon steel grade 10B21 (20MnB4). The screws are electro-galvanized zinc.

### 1.1 Shape and dimensions

The outer thread diameter is not less than 3.5 mm and not greater than 8.0 mm. The overall length of the screws is ranging from 30 mm to 400 mm. Further dimensions are shown in Annex 1.

## 2 Specification of the intended use(s) in accordance with the applicable European Assessment Document (hereinafter EAD)

The screws are intended to be used for connecting wood-based members where requirements for mechanical resistance and stability and safety in use shall be fulfilled. The screws are used for connections in load bearing timber structures between wood-based members:

- Solid timber (softwood) of strength classes C14 - C 40 according to EN 338<sup>1</sup> / EN 14081-1<sup>2</sup>
- Glued laminated timber (softwood) of at least strength class GL24c/GL24h according to EN 14080<sup>3</sup>
- Laminated veneer lumber LVL according to EN 14374<sup>4</sup>, arrangement of the screws only perpendicular to the plane of the veneers
- Glued laminated solid timber according to EN 14080<sup>3</sup>
- Cross laminated timber according to European Technical Assessments or national provisions that apply at the installation site

The screws may be used for connecting the following wood-based panels or steel to the timber members mentioned above:

- Plywood according to EN 636+A1<sup>5</sup> and EN 13986+A1<sup>6</sup>
- Oriented Strand Board, OSB according to EN 300<sup>7</sup> and EN 13986+A1<sup>6</sup>
- Particleboard according to EN 312<sup>8</sup> and EN 13986+A1<sup>6</sup>
- Fibreboards according to EN 622-2<sup>9</sup>, EN 622-3<sup>10</sup> and EN 13986+A1<sup>6</sup>
- Cement-bonded particle boards according to national provisions that apply at the building site
- Solid-wood panels according to national provisions that apply at the building site

Wood-based panels shall only be arranged on the side of the screw head.

DOMAX screws with an outer thread diameter of at least 3,5 mm may be used for the fixing of thermal insulation material on top of rafters.

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- 1 EN 338 Timber structures - Strength classes
  - 2 EN 14081-1 Timber structures - Strength graded structural timber with rectangular cross section - Part 1: General requirements
  - 3 EN 14080 Timber structures - Glued laminated timber and glued solid timber - Requirements
  - 4 EN 14374 Timber structures - Structural laminated veneer lumber - Requirements
  - 5 EN 636 Plywood - Specification
  - 6 EN 13986 Wood-based panels for use in construction - Characteristics, evaluation of conformity and marking
  - 7 EN 300 Oriented strand boards (OSB) - Definition, classification and specifications
  - 8 EN 312 Particleboards - Specifications
  - 9 EN 622-2 Fibreboards - Specifications - Part 2: Requirements for hardboards
  - 10 EN 622-3 Fibreboards - Specifications - Part 3: Requirements for medium boards

According to EN 1995-1-1+A2<sup>11</sup> the screws made from special stainless or carbon steel with  $d > 4$  mm may be used in timber structures subject to climate conditions defined by service classes 1 and 2. According to EN 1995-1-1+A2 the screws made from special stainless or carbon steel with  $d \leq 4$  mm may be used in timber structures subject to climate conditions defined by service class 1. Regarding environmental conditions national provisions shall apply at the building site.

Corrosive categories according to EN ISO 12944-2 shall be taken into account.

The use of the screws shall be limited to static and quasi/static actions.

The provisions made in this European Technical Assessment are based on an assumed minimum working life of 50 years, provided that the screws are subject to appropriate use and maintenance.

The indications given as to the working life cannot be interpreted as a guarantee given by the producer or Technical Assessment Body but are regarded only as a mean for choosing the right products in relation to the expected economically reasonable working life of the works.

### 3 Performance of the product and references to the methods used for its assessment

The assessment of the fitness for use of the DOMAX screws according to the basic work requirements (BWR) were carried out in compliance with EAD 130118-01-0603.

The European Technical Assessment is issued for the screws on the basis of agreed data and information, deposited at Technický a zkušební ústav stavební Praha, s.p., which identifies screws that has been assessed and judged. Changes to the screws or production process which could result in this deposited data and information being incorrect should be notified to Technický a zkušební ústav stavební Praha, s.p. before the changes are introduced. Technický a zkušební ústav stavební Praha, s.p. will decide whether or not such changes affect the ETA and consequently the validity of the CE marking on the basis of the ETA and if so whether further assessment or alternations to the ETA shall be necessary.

**Table 1** Essential characteristics of the product

	Essential characteristic	Performance
<b>3.1 BWR 1: Mechanical resistance and stability</b>		
3.1.1	Dimensions	See Annex 1
3.1.2	Characteristic yield moment	See Annex 2
3.1.3	Characteristic withdrawal parameter	See Annex 2
3.1.4	Characteristic head pull-through parameter	See Annex 2
3.1.5	Characteristic tensile strength	See Annex 2
3.1.6	Characteristic yield strength	See Annex 2
3.1.7	Characteristic torsional strength	See Annex 2
3.1.8	Insertion moment	See Annex 2
3.1.9	Bending angle	See Annex 2
3.1.10	Durability against corrosion	The screws are electro-galvanized zinc
3.1.11	Spacing, end and edge distances of the screws and minimum thickness of the wood-based material	Point 3.1.11
3.1.12	Slip modulus for mainly axially loaded screws	No performance assessed
<b>3.2 BWR 2: Safety in case of fire</b>		
3.2.1	Reaction to fire	Self-tapping screws are made of carbon steel classified as

<sup>11</sup> EN 1995-1-1+A2 Design of timber structures - Part 1-1: General - Common rules and rules for buildings

	Essential characteristic	Performance
		Euroclass A1 in accordance with EC decision 96/603/EC, as amended by EC
3.3 BWR 3: Hygiene, health and the environment		
3.3.1	Content, emission and/or release of dangerous substances	The manufacturer submitted written declaration the product does not contain cadmium or any other dangerous substances.
BWR 4: Safety and accessibility in use		
Same as BWR 1		

### 3.1 Mechanical resistance and stability (BWR 1)

Annex 2 contains essential characteristics for DOMAX screws. The design and construction shall be carried out according to national provisions that apply at the installation site in line with the partial safety factor format, e.g. in accordance with EN 1995-1-1+A2.

#### 3.1.1 Dimensions

The dimensions have been measured according to provisions in EN 14592+A1. The dimensions are documented in tables under Annex 1.

#### 3.1.2 Characteristic yield moment

The characteristic yield moment  $M_{y,k}$  has been determined by tests according to EN 409. The test results are documented in tables under Annex 2.

#### 3.1.3 Characteristic withdrawal parameter

The characteristic withdrawal parameters  $f_{ax,0,k}$  and  $f_{ax,90,k}$  have been determined by tests according to EN 1382. Density of used timber is mentioned in tables under Annex 2. The test results are documented in tables under Annex 2 and relevant test reports.

For angles  $\alpha$  between screw axis and grain direction  $15^\circ \leq \alpha < 45^\circ$  the characteristic withdrawal capacity  $F_{ax,\alpha,Rk}$  shall be determined according to equation:

$$F_{ax,\alpha,Rk} = k_{ax} \cdot f_{ax,90,k} \cdot d \cdot l_{ef} \cdot (\rho_k/350)^{0,8}$$

where

$k_{ax}$  factor to consider the influence of the angle between screw axis and grain direction and the long term behaviour

$$k_{ax} = 0,3 + (0,7 \cdot \alpha) / 45^\circ$$

$f_{ax,90,k}$  short-term characteristic withdrawal parameter for an angle  $\alpha$  between screw axis and grain direction of  $90^\circ$  in  $N/mm^2$

$d$  outer thread diameter of the screw in mm

$l_{ef}$  penetration length of the threaded part of the screw in the timber member in mm

$\rho_k$  characteristic density of the wood-based member in  $kg/m^3$

For angle  $\alpha$  between screw axis and grain direction  $0^\circ \leq \alpha < 15^\circ$  the following requirements were fulfilled and relevant equations can be used:

1.  $f_{ax,0,k} / f_{ax,90,k} \geq 0.6$
2. The penetration length of the threaded part of the screws shall be

$$l_{ef,req} = \min \left\{ \begin{array}{l} \frac{4 \cdot d}{\sin \alpha} \\ 20 \cdot d \end{array} \right.$$

3. At least four screws shall be used in a connection with screws inserted in the timber member with an angle between screw axis and grain direction of less than  $15^\circ$ .

### **3.1.4 Characteristic head pull-through parameter**

The characteristic head pull-through parameter  $f_{head,k}$  has been determined by tests according to EN 1383. Density of used timber is mentioned in tables under Annex 2. The test results are documented in tables under Annex 2.

### **3.1.5 Characteristic tensile strength**

The characteristic tensile strength  $f_{tens,k}$  has been determined by tests according to EN 1383. The test results are documented in tables under Annex 2.

### **3.1.6 Characteristic yield strength**

The characteristic yield strength has been determined by tests according to EN 1383. The test results are documented in tables under Annex 2.

### **3.1.7 Characteristic torsional strength**

The characteristic torsional strength  $f_{tor,k}$  has been determined by tests according to EN ISO 10666. The test results are documented in tables under Annex 2.

### **3.1.8 Insertion moment**

The characteristic insertion moment  $R_{tor,k}$  has been determined by tests according to EN 15737. The characteristic torsional ratio  $f_{tor,k}/R_{tor,k} \geq 1.5$  has been fulfilled for all types of screws. The test results are documented in tables under Annex 2.

### **3.1.9 Bending angle**

The bending angle has been determined for each specimen. The test results are documented in tables under Annex 2.

### **3.1.10 Durability against corrosion**

The screws are made from hardened carbon steel grade 10B21 (20MnB4) with corrosion protection layer. The screws are electro-galvanized zinc.

### **3.1.11 Spacing, end and edge distances of the screws and minimum thickness of the wood-based material**

#### **Laterally loaded screws**

For DOMAX screws the minimum spacing, end and edge distances are given in EN 1995-1-1, clause 8.7.1.

#### **Axially loaded screws**

For DOMAX screws the minimum spacing, end and edge distances are given in EN 1995-1-1, clause 8.7.2 and Table 8.6.

### **3.1.12 Slip modulus for mainly axially loaded screws**

No performance assessed.

## **3.2 Safety in case of fire (BWR 2)**

### **3.2.1 Reaction to fire**

Self-tapping screws are made of hardened carbon steel classified as Euroclass A1 in accordance with EC decision 96/603/EC, as amended by EC.

### 3.3 Hygiene, health and the environment (BWR 3)

#### 3.3.1 Content, emission and/or release of dangerous substances

The manufacturer submitted a written declaration the product does not contain cadmium or any other dangerous substances.

## 4 Assessment and verification of constancy of performance (hereinafter AVCP) system applied, with reference to its legal base

According to the decision 97/176/EC<sup>12</sup>, of the European Commission the system(s) of assessment and verification of constancy of performance (see Annex V to Regulation (EU) No 305/2011) given in the following table applies:

Product(s)	Intended use(s)	Level(s) or class(es)	Attestation of conformity system(s)
Fasteners for structural timber products	Structural timber products		3

<sup>12</sup> 97/176/EC - European Commission decision of 17/2/1997, published in the Official Journal of the European Communities No L 73/19  
ETA 16/0156, version 01, of 26/07/2019  
070-051284

## 5 Technical details necessary for the implementation of the AVCP system, as provided for in the applicable EAD

Technical details necessary for the implementation of the AVCP system are laid down in the control plan deposited at the Technický a zkušební ústav stavební Praha, s.p.

Issued in Prague on 26/07/2019



By

Ing. Mária Schaan  
Head of the TAB

### Annexes:

- Annex 1 Dimensions and tolerances of DOMAX screws
- Annex 2 Essential characteristics of DOMAX screws
- Annex 3 Manufacturing, installation, storage and maintenance
- Annex 4 Reference documents

**Annex 1    Dimensions and tolerances of DOMAX screws**

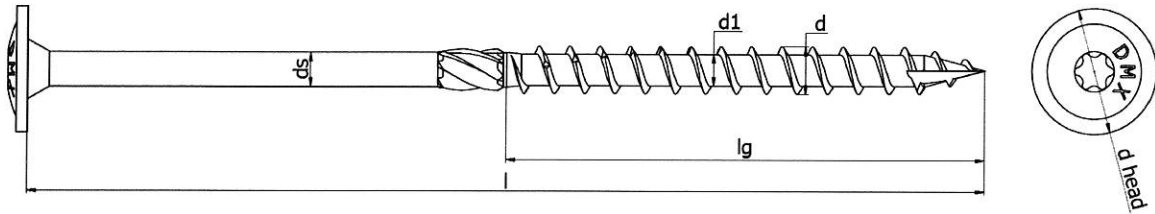


Figure 1: Screw, type CT

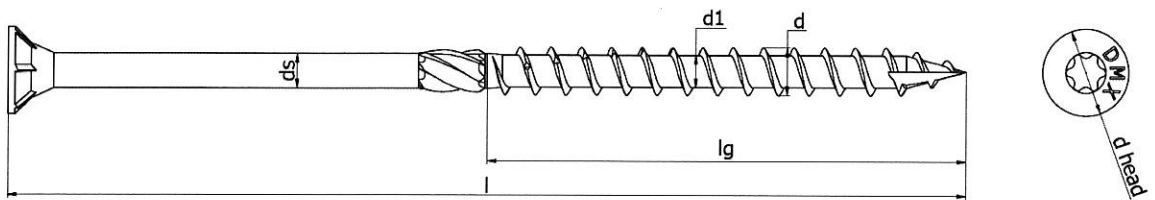


Figure 2: Screw, type CS



Type	Nominal		/ [mm]		$l_g$ [mm]		$d$ [mm]		$d_1$ [mm]		$d_{head}$ [mm]		$d_s$ [mm]		
	Diameter	Length	Value	Tolerance	Value	Tolerance	Value	Tolerance	Value	Tolerance	Value	Tolerance	Value	Tolerance	
CS	3.5	30	30	±0.75	18	±0.75	3.5	±0.09	2.15	±0.05	7	+0.35 / -0.18	2.5	±0.06	
		35	35												
		40	40	±1	24	±1	4.0	±0.1	2.4	±0.06	8	+0.4 / -0.2	2.8	±0.07	
		45	45												
		50	50												
	60	60	±1	35	±1	4.0	±0.1	2.4	±0.06	8	+0.4 / -0.2	2.8	±0.07		
	70	70													
	80	80													
	30	30	±0.75	18	±0.75	4.5	±0.11	2.8	±0.07	9	+0.45 / -0.22	3.2	±0.08		
	35	35	±1	24	±1	4.5	±0.11	4.5	±0.11	2.8	±0.07	9	+0.45 / -0.22	3.2	±0.08
	40	40													
	45	45													
	50	50													
	60	60													
	70	70	±1	35	±1	4.5	±0.11	4.5	±0.11	2.8	±0.07	9	+0.45 / -0.22	3.2	±0.08
	80	80													
	80	80													
	40	40	±1	24	±1	5	±0.13	5	±0.13	3.2	±0.08	10	+0.5 / -0.25	3.6	±0.09
	45	45													
	50	50													
60	60														
70	70														
80	80	±1	40	±1	5	±0.13	5	±0.13	3.2	±0.08	10	+0.5 / -0.25	3.6	±0.09	
90	90														
100	100														
120	120	±2	60	±1.5	5	±0.13	5	±0.13	3.2	±0.08	10	+0.5 / -0.25	3.6	±0.09	
120	120														

Type	Nominal		/ [mm]		/g [mm]		d [mm]		d <sub>1</sub> [mm]		d <sub>head</sub> [mm]		d <sub>s</sub> [mm]	
	Diameter	Length	Value	Tolerance	Value	Tolerance	Value	Tolerance	Value	Tolerance	Value	Tolerance	Value	Tolerance
CS	6.0	70	70	±1	40	±1	6.0	±0.15	4	±0.1	11	+0.55 / - 0.25	4.35	±0.11
		80	80											
		100	100											
		120	120											
		140	140											
		160	160											
		180	180											
		200	200											
		220	220											
		240	240											
		260	260											
		280	280											
	300	300												
	8.0	80	80	±1	80	±1.5	8.0	±0.2	5.4	±0.13	14.5	+0.7 / -0.5	5.8	±0.1
		100	100											
		120	120											
		140	140											
		160	160											
		180	180											
		200	200											
		220	220											
		240	240											
		260	260											
		280	280											
300		300												
320	320													
340	340													
360	360													
380	380													
400	400													

Type	Nominal		/ [mm]		l <sub>g</sub> [mm]		d [mm]		d <sub>1</sub> [mm]		d <sub>head</sub> [mm]		d <sub>s</sub> [mm]	
	Diameter	Length	Value	Tolerance	Value	Tolerance	Value	Tolerance	Value	Tolerance	Value	Tolerance	Value	Tolerance
CT	6.0	70	70	±1	40	±1	6.0	±0.15	4	±0.1	16	±0.8	4.35	±0.11
		80	80											
		100	100											
		120	120											
		140	140											
		160	160											
		180	180											
		200	200											
		220	220											
		240	240											
		260	260											
		280	280											
	300	300												
	8.0	80	80	±1	80	±1.5	8.0	±0.2	5.4	±0.13	21	±1	5.8	±0.14
		100	100											
		120	120											
		140	140											
		160	160											
		180	180											
		200	200											
		220	220											
		240	240											
		260	260											
		280	280											
300		300												
320	320													
340	340													
360	360													
380	380													
400	400													

## Annex 2 Essential characteristics of DOMAX screws

### 3.1 Mechanical resistance and stability (BWR 1)

**Table 2** DOMAX CS screw

3.1.2	Characteristic yield moment				
$M_{y,k}$ (Nmm)	$\varnothing$ [mm]	threaded part	smoothed part		
	3.5	1310	–		
	4.0	2220	5400		
	4.5	1480	6420		
	5.0	4130	8060		
	6.0	9300	13760		
	8.0	18370	18520		
3.1.3	Characteristic withdrawal parameter				
$f_{ax,k}$ (N/mm <sup>2</sup> )	$\varnothing$ [mm]	Length [mm]	Rad.	Tag.	Alongside
	3.5	30	7.63(*)	14.44(*)	3.30(*)
		45	12.03(*)	13.94(*)	7.00(*)
	4.0	30	6.85(*)	8.65(*)	3.23(*)
		40	12.44(*)	7.18(*)	5.22(*)
		70	14.70(*)	15.59(*)	9.57(*)
	4.5	30	9.91(*)	9.84(*)	3.21(*)
		40	9.67(*)	8.03(*)	4.36(*)
		45	11.54(*)	12.21(*)	6.37(*)
		70	14.85(*)	14.41(*)	8.37(*)
	5.0	40	8.21(*)	10.53(*)	5.42(*)
		45	11.85(*)	11.85(*)	6.20(*)
		50	10.91(*)	12.84(*)	6.73(*)
		100	18.93(*)	16.29(*)	11.36(*)
	6.0	70	13.92(*)	15.77(*)	8.22(*)
		100	22.42(*)	25.39(*)	8.51(*)
8.0	80	14.39(*)	14.75(*)	9.96(*)	
	120	16.18(*)	14.12(*)	13.00(*)	
3.1.4	Characteristic head pull-through parameter				
$f_{head,k}$ (N/mm <sup>2</sup> )	$\varnothing$ [mm]	Rad.	Tag.		
	3.5	16.89 (**)	11.46 (**)		
	4.0	13.89 (**)	13.99 (**)		
	4.5	14.59 (**)	14.15 (**)		
	5.0	15.41 (**)	13.88 (**)		
	6.0	10.06 (**)	12.16 (**)		
	8.0	19.47 (**)	12.87 (**)		
3.1.5	Characteristic tensile capacity				
$f_{tens,k}$ (kN)	$\varnothing$ [mm]				
	3.5	4.04			
	4.0	5.12			
	4.5	5.94			
	5.0	8.83			
	6.0	13.62			
	8.0	20.57			
3.1.6	Characteristic yield strength				
$R_{p0.2}$ (MPa)	$\varnothing$ [mm]				
	3.5	842.8			
	4.0	856.0			
	4.5	782.3			
	5.0	918.2			

		6.0	929.1
		8.0	794.7
3.1.7 3.1.8	Characteristic torsional ratio (Characteristic torsional strength/Characteristic torsional resistance into timber)		
	$f_{tor,k} / R_{tor,k}$ (Nm) / (Nm)	$\varnothing$ [mm]	
		3.5	1.90/0.48 = 3.94
		4.0	2.86/0.58 = 4.93
		4.5	3.40/0.88 = 3.85
		5.0	6.47/1.52 = 4.25
		6.0	12.30/3.42 = 3.60
		8.0	30.28/4.11 = 7.37
3.1.9	Bending angle		
	Bending angle (°)	$\varnothing$ [mm]	
		3.5	46.42°
		4.0	55.23°
		4.5	38.81°
		5.0	40.03°
		6.0	36.62°
		8.0	55.55°

\* density of used timber 350 kg/m<sup>3</sup>

\*\* density of used timber 380 kg/m<sup>3</sup>

**Table 3** DOMAX CT screw

3.1.2	Characteristic yield moment					
	$M_{y,k}$ (Nmm)	$\varnothing$ [mm]	threaded part	smoothed part		
		6.0	9300	13760		
		8.0	18370	18520		
3.1.3	Characteristic withdrawal parameter					
	$f_{ax,k}$ (N/mm <sup>2</sup> )	$\varnothing$ [mm]	Length [mm]	Rad.	Tag.	Alongside
		6.0	70	13.92(*)	15.77(*)	8.22(*)
			100	22.42(*)	25.39(*)	8.51(*)
		8.0	80	14.39(*)	14.75(*)	9.96(*)
			120	16.18(*)	14.12(*)	13.00(*)
3.1.4	Characteristic head pull-through parameter					
	$f_{head,k}$ (N/mm <sup>2</sup> )	$\varnothing$ [mm]				
		6.0	20.48 (**)		17.49 (**)	
		8.0	22.03 (**)		16.14 (**)	
3.1.5	Characteristic tensile capacity					
	$f_{tens,k}$ (kN)	$\varnothing$ [mm]				
		6.0		12.38		
		8.0		25.18		
3.1.6	Characteristic yield strength					
	$R_{p0.2}$ (MPa)	$\varnothing$ [mm]				
		6.0		868.7		
		8.0		940.2		
3.1.7 3.1.8	Characteristic torsional ratio (Characteristic torsional strength/Characteristic torsional resistance into timber)					
	$f_{tor,k} / R_{tor,k}$ (Nm) / (Nm)	$\varnothing$ [mm]				
		6.0		12.86/3.42 = 3.76		
		8.0		30.77/4.11 = 7.49		
3.1.9	Bending angle					
	Bending angle (°)	$\varnothing$ [mm]				
		6.0		36.62°		
		8.0		55.55°		

\* density of used timber 350 kg/m<sup>3</sup>

\*\* density of used timber 380 kg/m<sup>3</sup>

## **Annex 3 Manufacturing, installation, storage and maintenance**

### **Manufacture**

This European Technical Assessment is issued for screws for use in timber constructions produced by the DOMAX on the basis of agreed data, deposited with the Technický a zkušební ústav stavební Praha, s.p., which identifies the screws that has been assessed and evaluated. Changes to the screws or production process which could result in this deposited data being incorrect, shall be notified to the Technický a zkušební ústav stavební Praha, s.p., before the changes are introduced. Technický a zkušební ústav stavební Praha, s.p. will decide whether or not such changes affect the ETA and consequently the validity of the CE marking on the basis of the ETA, and if so, whether further assessment or alterations to the ETA shall be necessary.

### **Design and installation**

The installation instructions including special installation techniques and provisions for the qualification of the personnel are given in the manufacturer's technical documentation.

Design, installation and execution of DOMAX screws must confirm with national documents. Such documents and the level of their implementation in member states' legislation are different. Therefore, the assessment and declaration of performance are done taking into account the general assumptions included in EAD 130118-01-0603, which summarizes how information included in the ETA and related documents are intended to be used in the construction process and gives advice to all parties interested when normative documents are missing.

The screws are driven into the wood-based member without pre-drilling or in pre-drilled holes with a diameter not exceeding the inner thread diameter  $d_1$ . The tolerances stated in drawings and tables of Annex 1 may be permissible. The screw holes in steel members shall be pre-drilled with an adequate diameter greater than the outer thread diameter.

A minimum of two screws shall be used for connections in load bearing timber structures. If screws with an outer thread diameter  $d \geq 8$  mm are driven into the wood-based member without pre-drilling, the structural solid or glued laminated timber, laminated veneer lumber and similar glued members shall be from spruce, pine or fir.

In the case of fastening battens on thermal insulation material on top of rafters the screws shall be driven in the rafter through the battens and the thermal insulation material without pre-drilling in one sequence.

By fastening screws in wood-based members the head of the screws shall be flush with the surface of the wood-based member.

The minimum penetration length of screws in the load-bearing wood-based members shall be  $4 \cdot d$ . The outer thread diameter of screws inserted in cross-laminated timber shall be at least 6 mm. To connect cross-laminated timber in the inner thread diameter  $d_1$  of the screws shall be greater than the maximal width of the gaps in the layer.

### **Packaging, transport and storage**

Information on packaging, transport and storage is given in the manufacturer's technical documentation. It is the responsibility of the manufacturer to ensure that this information is made known to the people concerned.

DOMAX screws must be stored indoors and protected from the weather, damage and/or breakage.

DOMAX screws should be transported in such a way as to protect against damage or breakage.

**Use, maintenance and repair**

Information on use, maintenance and repair is given in the manufacturer's technical documentation. It is the responsibility of the manufacturer to ensure that this information is made known to the people concerned.

#### **Annex 4 Reference documents**

- [1] European Assessment Document EAD 130118-01-0603 Screws and threaded rods for use in timber constructions (March 2019)
- [2] Test Reports No. W-01-0001/18 on date 06/05/2019, regarding tests of mechanical resistance, stability and determination dimensions of screws, issued by DOMAX sp. z o.o., Łężyce, Republic of Poland
- [3] Test Report No. WO-01-0002\_18 on date 24/10/2018, regarding tests of mechanical resistance, stability and determination dimensions of screws, issued by DOMAX sp. z o.o., Łężyce, Republic of Poland
- [4] Declaration about dangerous substances issued by DOMAX sp. z o.o., Republic of Poland