BRITISH STANDARD

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1927-3:2008

Qualitative classification of softwood round timber —

Part 3: Larches and Douglas fir

ICS 79.040

National foreword

This British Standard is the UK implementation of EN 1927-3:2008. It supersedes DD ENV 1927-3:1999 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee B/543, Round and sawn timber.

A list of organizations represented on this committee can be obtained on request to its secretary.

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Contents

Page

Foreword

This document (EN 1927-3:2008) has been prepared by Technical Committee CEN/TC 175 “Round and sawn timber”, the secretariat of which is held by AFNOR.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by September 2008, and conflicting national standards shall be withdrawn at the latest by September 2008.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document will supersede ENV 1927-3:1998.

EN 1927 consists of the following parts with the main title *Qualitative classification of softwood round timber*:

— EN 1927-1, *Spruces and firs*

— EN 1927-2, *Pines*

— EN 1927-3, *Larches and Douglas fir*

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

1 Scope

This Standard specifies the qualitative classification for the roundwood of larches (*Larix*) and Douglas fir (*Pseudotsuga*). The classification is made either using Clauses 4 and 5 or using informative Annex A. Clauses 4 and 5 describe the qualitative classification of round timber for which the intended use is unknown.

Annex A gives a list of characteristics which serves as guideline for contracts describing qualities for round timber of larches and Douglas fir where the intended use is known.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 844-1:1995, *Round and sawn timber — Terminology — Part 1: General terms common to round timber and sawn timber*

EN 844-2:1997, *Round and sawn timber — Terminology — Part 2: General terms relating to round timber*

EN 844-5:1997, *Round and sawn timber — Terminology — Part 5: Terms relating to dimensions of round timber*

EN 844-7:1997, *Round and sawn timber — Terminology — Part 7: Terms relating to anatomical structure of timber*

EN 844-8:1997, *Round and sawn timber — Terminology — Part 8: Terms relating to the features of round timber*

EN 844-9:1997, *Round and sawn timber — Terminology — Part 9: Terms relating to features of sawn timber*

EN 844-10:1998, *Round and sawn timber — Terminology — Part 10: Terms relating to stain and fungal attack*

EN 844-12:2000, *Round and sawn timber— Terminology — Part 12: Additional terms and general index*

EN 1309-2, *Round and sawn timber — Method of measurement of dimensions — Part 2: Round timber – Requirements for measurement and volume calculation rules*

EN 1310, *Round and sawn timber — Method of measurement of features*

EN 1311, *Round and sawn timber — Method of measurement of biological degrade*

ISO 2036, *Wood for manufacture of wood flooring — Symbols for marking according to species*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 844-1:1995, EN 844-2:1997, EN 844-5:1997, EN 844-7:1997, EN 844-8:1997, EN 844-9:1997, EN 844-10:1998 and EN 844-12:2000 apply.

4 Qualitative classification for which the intended use is unknown

The qualitative grading has four classes: A, B, C and D. The grading is based on the following general description of quality classes:

— **Quality class A**

First quality timber. Generally corresponding to a butt log with clear timber, without defects or with only minor defects and with few restrictions to its use.

— **Quality class B**

Timber of average to first quality, with no specific requirements for clear wood. Knots are permitted to such an extent as is considered to be average for each species.

— **Quality class C**

Timber of average to low quality, allowing all quality characteristics which do not seriously reduce the natural characteristics of the wood.

— **Quality class D**

Timber which can be sawn into usable wood, which, because of its characteristics, falls into none of the quality classes A, B or C.

The classes are defined more precisely in Table 1 and Table 2. All the listed qualitative characteristics in Table 1 and Table 2 shall be taken into account when a class is assigned, and measurements shall be made according to EN 1309-2, EN 1310 and EN 1311.

This classification shall be completed with the Latin name of specified species. The abbreviation of this Latin name can also be used instead of the full name.

EXAMPLE 1 Douglas fir: *Pseudotsuga* class B or PSES-B[1].

EXAMPLE 2 Larch: *Larix* class B or LARX-B[1].

[1] Symbols given in ISO 2036

5 Rules for grading

Table 1 — Grading of Larches

Characteristics		Classes			
		A	B	C	D
knots					
intergrown, sound		not permitted [a]	≤ 5 cm	≤ 8 cm	permitted
dead		not permitted [a]	≤ 3 cm	≤ 7 cm	permitted
unsound		not permitted	not permitted	≤ 3 cm	permitted
resin pocket		not permitted [a]	1 per cross-section	permitted	permitted
rate of growth		≤ 4 mm	≤ 7 mm	unlimited	unlimited
growth					
spiral grain		≤ 3 cm/m	≤ 7 cm/m	≤ 10 cm/m	unlimited
eccentric pith		≤ 10 %	≤ 20 %	unlimited	unlimited
sweep [b]	< 35 cm	≤ 1 cm/m	≤ 1,5 cm/m	≤ 2,5 cm/m	≤ 4,5 cm/m
	≥ 35 cm	≤ 1,5 cm/m	≤ 2 cm/m	≤ 3 cm/m	≤ 4,5 cm/m
taper	< 35 cm	unlimited	≤ 1,5 cm/m	≤ 2,5 cm/m	unlimited
	≥ 35 cm	unlimited	≤ 2 cm/m	≤ 4 cm/m	unlimited
shakes					
heart shakes (except checks) [b]	< 35 cm	not permitted	not permitted	≤ 1/2 ∅	permitted
	≥ 35 cm	≤ 1/4 ∅	≤ 1/3 ∅	≤ 1/2 ∅	permitted
ring shakes [b]	< 35 cm	not permitted	not permitted	not permitted	≤ 1/2 ∅
	≥ 35 cm	not permitted	≤ 1/4 ∅	≤ 1/3 ∅	≤ 1/2 ∅
insect attack					
< 2 mm (e.g. *Trypodendron lineatum*)		not permitted	not permitted	not permitted [c]	permitted
≥ 2 mm (e.g. *Sirex*, *Cerambycidae*)		not permitted	not permitted	not permitted	small-scale attack permitted
rot		not permitted	not permitted	not permitted [d]	permitted
stain		not permitted	not permitted	permitted in the sap area [e]	permitted

a Refer to the general description of quality classes.

b Mid diameter under bark.

c Initial stages of *Trypodendron lineatum* attack permitted.

d Small areas of surface rot is permitted in the area of the butt swelling.

e Specific contract regulations are recommended.

Table 2 — Grading of Douglas fir

Characteristics		Classes			
		A	B	C	D
knots					
intergrown, sound		not permitted [a]	≤ 5 cm	≤ 8 cm	permitted
dead		not permitted	≤ 4 cm	≤ 7 cm	permitted
unsound		not permitted	not permitted	≤ 4 cm	permitted
resin pocket		not permitted [a]	1 per cross-section	permitted	permitted
rate of growth		≤ 8 mm	≤ 8 mm	unlimited	unlimited
growth					
spiral grain		≤ 3 cm/m	≤ 7 cm/m	≤ 10 cm/m	unlimited
eccentric pith		≤ 10 %	≤ 20 %	unlimited	unlimited
sweep [b]	< 35 cm	≤ 1 cm/m	≤ 1,5 cm/m	≤ 2,5 cm/m	≤ 4,5 cm/m
	≥ 35 cm	≤ 1,5 cm/m	≤ 2 cm/m	≤ 3 cm/m	≤ 4,5 cm/m
taper [b]	< 35 cm	unlimited	≤ 1,5 cm/m	≤ 2,5 cm/m	unlimited
	≥ 35 cm	unlimited	≤ 2 cm/m	≤ 4 cm/m	unlimited
shakes					
heart shakes (except checks) [b]	< 35 cm	not permitted	not permitted	≤ 1/2 ∅	permitted
	≥ 35 cm	≤ 1/4 ∅	≤ 1/3 ∅	≤ 1/2 ∅	permitted
ring shakes [b]	< 35 cm	not permitted	not permitted	not permitted	≤ 1/2 ∅
	≥ 35 cm	not permitted	≤ 1/4 ∅	≤ 1/3 ∅	≤ 1/2 ∅
insect attack					
< 2 mm (e.g. *Trypodendron lineatum*)		not permitted	not permitted	not permitted [c]	permitted
≥ 2 mm (e.g. *Sirex*, *Cerambycidae*)		not permitted	not permitted	not permitted	small-scale attack permitted
rot		not permitted	not permitted	not permitted [d]	permitted
stain		not permitted	not permitted	permitted in the sap area [e]	permitted

a Refer to the general description of quality classes.

b Mid diameter under bark.

c Initial stages of *Trypodendron lineatum* attack permitted.

d Small areas of surface rot are permitted in the area of the butt swelling.

e Specific contract regulations are recommended.

6 Additional criteria

In case of doubt, any externally visible or possible hidden flaws (e.g. knots under buckles, overgrown shakes, stripping damage) shall be laid bare and the revealed flaws assessed according to the quality specifications. Foreign bodies (e.g. shrapnel) are not dealt with in this standard.

Where some characteristics of round wood of the classes A and B do not fulfil the quality criteria on agreement, they can be compensated by higher quality in other characteristics.

Generally, the following characteristics cannot be compensated: insect attack (especially *Trypodendron lineatum*), rot and stain. If there is compensation for minor rot of little consequence, an agreement is necessary.

Each log can be graded either in a single class or in more than one class by using theoretical crosscut points. The minimum length accepted for a theoretical crosscut point is 3 m.

Annex A
(informative)

Qualitative classification for which the intended use is known

The following list of characteristics should be considered for contracts where the intended use is known. EN 1309-2, EN 1310 and EN 1311 shall be used as a reference.

NOTE The following list is not exhaustive. Additional characteristics may be considered.

— butt swelling;

— eccentric pith;

— foreign body;

— insect attack;

— knots;

— rate of growth;

— reaction wood;

— resin pocket;

— rot;

— shakes;

— spiral grain;

— stain;

— sweep;

— taper;

— tapping cut;

— undercut.

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