

### Contents

	Foreword
	Introduction
1	Scope
2	Normative references
3	Terms and definitions
4	Symbols and abbreviated terms
5	General
5.1	Visual strength-graded timber
5.2	Visual strength-grading operations
5.3	Visual strength-grading principles of quality control
6	Resource and sawn timber input requirements
6.1	General
6.2	Input requirements
6.2.1	Resource
6.2.2	Sawn timber
6.3	Control of inputs
6.4	Reprocessing of previously graded material
7	Visual strength-grading requirements
7.1	Grader requirements
7.2	Grading process
7.2.1	General
7.3	Grading to satisfy structural requirements
7.3.1	Structural features
7.3.2	Measurement of structural features
7.3.2.1	Knots
7.3.2.2	Slope of grain
7.3.2.3	Rate of growth
7.3.2.4	Fissures
7.3.2.5	Moisture condition
7.3.2.6	Combinations of defects
7.3.3	Framework for structural requirements
7.4	Grading to satisfy the utility requirements
7.4.1	Utility features
7.4.2	Measurement of utility features
7.4.2.1	Crookedness
7.4.2.2	Dimension and tolerances
7.4.2.3	Other features
7.5	Check on visual grading process
8	Visual graded timber structural properties
8.1	General
8.2	Initial evaluation
9	Product identification
10	Documentation

**Annex A (informative) Example of a visual strength-grading timber standard — based on the need for design values where a degree of certainty of structural properties is required**

- A.1 Scope
- A.2 Normative references
- A.3 Terms and definitions
- A.4 Symbols
- A.5 General
- A.5.1 Visual strength-grading operations
- A.5.2 Principles of quality control
- A.6 Resource input requirements
- A.7 Visual properties
- A.7.1 Grader requirements
- A.7.2 Visual grading requirements
- A.7.2.1 Definitions of features
- A.7.2.2 Limits for structural features
- A.7.2.3 Limits for utility features
- A.7.3 Check on visual grading process
- A.8 Structural properties
- A.8.1 General
- A.8.2 Initial evaluation
- A.9 Product identification
- A.10 Documentation

**Annex B (informative) Example of a visual strength-grading timber standard based on the need for design values where a high degree of certainty of structural properties is not required**

- B.1 Scope
- B.2 Normative references
- B.3 Terms and definitions
- B.4 General
- B.4.1 Visual strength-grading operations
- B.4.2 Principles of quality control
- B.5 Resource input requirements
- B.6 Strength-grading requirements
- B.6.1 Limits for grade sorting
- B.6.1.1 For structural purposes
- B.6.1.2 For utility purposes
- B.6.2 Check on grading process
- B.7 Structural properties
- B.7.1 General
- B.7.2 Initial evaluation
- B.8 Product identification
- B.9 Documentation

**Annex C (informative) Example of a framework for structural grading provisions**

- C.1 General
- C.2 Framework example
- C.3 Model considerations
- C.4 Implementation
- C.5 Variability and the grading rule
- C.6 Periodic review

**Annex D (informative) Example of visual strength grading for tropical hardwood timber**

- D.1 Scope
- D.2 Normative reference
- D.3 Terms and definition
- D.4 Strength graded timber
- D.4.1 Visual strength-grading operations
- D.4.2 Principles of quality control
- D.4.3 Resource input requirements
- D.4.3.1 General
- D.4.3.2 Seasoning
- D.4.3.3 Sizes
- D.4.4 Processed timber

- D.4.5 Resawing or surfacing
- D.4.6 Cross cutting
- D.4.7 Moisture content
  - D.4.7.1 Determination
  - D.4.7.2 Surface dry
  - D.4.7.3 Air dry
  - D.4.7.4 Kiln dry
- D.4.8 Acceptance limits for visually graded timber
- D.4.9 Abnormal defects
- D.5 Measurement of characteristics
  - D.5.1 Slope of grain
  - D.5.2 Knots
  - D.5.3 Fissures
  - D.5.4 Distortion
  - D.5.5 Wane
  - D.5.6 Brittle heart
- D.6 Requirements for various grades
- D.7 Product identification

**Annex E (informative) Training, supervision and oversight of grading**

**Page count: 39**