This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.

Designation: D6570 – 18a

# Standard Practice for Assigning Allowable Properties for Mechanically Graded Lumber[1]

This standard is issued under the fixed designation D6570; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ε) indicates an editorial change since the last revision or reapproval.

## 1. Scope

1.1 This practice covers the methodology of grade qualification, assignment of design properties, and requirements for the quality control of mechanically graded solid sawn lumber.

1.2 This practice acknowledges alternative methods for the assignment of specific properties. These methods are assignment by test, relationship to other properties, and by procedures in other appropriate standards.

1.3 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

## 2. Referenced Documents

2.1 *ASTM Standards:*[2]

D9 Terminology Relating to Wood and Wood-Based Products

D143 Test Methods for Small Clear Specimens of Timber

D198 Test Methods of Static Tests of Lumber in Structural Sizes

D245 Practice for Establishing Structural Grades and Related Allowable Properties for Visually Graded Lumber

D1165 Nomenclature of Commercial Hardwoods and Softwoods

D1990 Practice for Establishing Allowable Properties for Visually-Graded Dimension Lumber from In-Grade Tests of Full-Size Specimens

D2395 Test Methods for Density and Specific Gravity (Relative Density) of Wood and Wood-Based Materials

D2555 Practice for Establishing Clear Wood Strength Values

D2915 Practice for Sampling and Data-Analysis for Structural Wood and Wood-Based Products

D3737 Practice for Establishing Allowable Properties for Structural Glued Laminated Timber (Glulam)

D4442 Test Methods for Direct Moisture Content Measurement of Wood and Wood-Based Materials

D4761 Test Methods for Mechanical Properties of Lumber and Wood-Base Structural Material

D7438 Practice for Field Calibration and Application of Hand-Held Moisture Meters

2.2 *ANSI Standards:*[3]

ANSI A190.1 American National Standard for Wood Products—Structural Glued Laminated Timber

ANSI/AWC NDS National Design Specification for Wood Construction

2.3 *Canadian Standards Association Standard:*[4]

CSA O141 Softwood Lumber

2.4 *National Institute of Standards and Technology Standard:*[5]

PS 20 Voluntary Product Standard, American Softwood Lumber Standard

## 3. Terminology

3.1 *Definitions*—For definitions of terms related to wood, refer to Terminology D9.

3.2 *Definitions of Terms Specific to This Standard:*

3.2.1 *mechanical evaluation, n*—identification and appraisal of one or more physical or mechanical lumber characteristics as part of the lumber segregation process.

3.2.2 *mechanically graded lumber, n*—solid sawn lumber graded by mechanical evaluation. Visual evaluation also may be required. The material has assigned design properties and is manufactured for use as structural members.

[1] This practice is under the jurisdiction of ASTM Committee D07 on Wood and is the direct responsibility of Subcommittee D07.02 on Lumber and Engineered Wood Products.

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[2] For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

[3] Available from American National Standards Institute (ANSI), 25 W. 43rd St., 4th Floor, New York, NY 10036, http://www.ansi.org.

[4] Available from Canadian Standards Association (CSA), 5060 Spectrum Way, Mississauga, ON L4W 5N6, Canada, http://www.csa.ca.

[5] Available from National Institute of Standards and Technology (NIST), 100 Bureau Dr., Stop 1070, Gaithersburg, MD 20899-1070, http://www.nist.gov.

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