



ANSI O5.2-2020

Structural Glued Laminated Timber for Utility Structures

AMERICAN NATIONAL STANDARD FOR WOOD UTILITY PRODUCTS



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ANSI O5.2-2020, Structural Glued Laminated Timber for Utility Structures

Is an American National Standard developed by **ASC O5 – Wood Utility Products**.

Published by

**American Wood Protection Association
P.O. Box 36174
Birmingham, AL 35236**

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Printed in the United States of America.

ANSI O5.2-2020

American National Standard for Wood Products

**Structural Glued Laminated Timber
for Utility Structures**

Secretariat
American Wood Protection Association, Inc.

Approved January 10, 2020
American National Standards Institute, Inc.

ANSI O5.2-2020

Foreword

This American National Standard establishes requirements for structural glued laminated timber utility structures and provides a basis for common understanding among producers, distributors, and users of this product. This standard references specific material grading rules and processing routines, the criteria of which are uniform and fair to enable a standardization of the end product.

This standard was developed by Accredited Standards Committee O5 – Wood Utility Products (ASC O5) under the procedural administration of the American Wood Protection Association (AWPA). ASC O5 was organized in December 1924 and has produced revisions of this standard from time to time as required or deemed beneficial. This standard contains three annexes. These are provided for information only, and are not considered part of this standard.

Suggestions for improvement of this standard will be welcomed. They should be sent to ASC O5 through its Secretariat: American Wood Protection Association, P.O. Box 361784, Birmingham, AL 35236 <www.awpa.com>.

This standard was processed and approved for submittal to ANSI by ASC O5. Committee approval of this standard does not necessarily imply that all committee members voted for its approval. At the time it processed and approved this standard, ASC O5 had the following leadership and members:

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American National Standard for Wood Utility Products – Structural Glued Laminated Timber for Utility Structures

1 Scope

This standard covers requirements for manufacturing and quality control of structural glued laminated timber of Southern Pine (longleaf, slash, shortleaf, loblolly), Coast Douglas-fir, Hem-Fir and other species of similar treatability for electric power and communication structures. The requirements are based on those in *American National Standard for Structural Glued Laminated Timber*, ANSI A190.1. This standard is supplemental to ANSI A190.1 and provides descriptions of the special manufacturing and design requirements for glued laminated utility structures.

The term, *structural glued laminated timber*, as used in this standard, refers to an engineered, stress-rated product of a timber laminating plant comprising assemblies of specially selected and prepared wood laminations securely bonded together with adhesives. The grain of all laminations is approximately parallel longitudinally. They may comprise pieces end joined to form any length, or pieces placed or glued edge-to-edge to make wider ones or of pieces bent to curved form during gluing.

Timbers manufactured in accordance with this standard can be stressed in axial tension or axial compression, loaded in bending parallel to or perpendicular to the wide face of the laminations, or any combination of the above. Members that are normally loaded in bending about one axis of a laminated timber may, under other loading conditions, be stressed about the other axis, or about both axes and shall be designed accordingly. See *Standard Specifications for Structural Glued Laminated Timber of Softwood Species*, ANSI 117, for descriptions of various arrangements of laminations within a laminated member. Other combinations of grades of lumber are available that may be more desirable and economical, depending upon the design and loading requirements of the timber and availability of various grades.

All timbers produced in accordance with the requirements of this standard are intended for use in exterior construction and, therefore, will be exposed to both wet and dry conditions of use.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this American National Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this American National Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. The latest edition (unless a specific edition is referenced) may be used as references.

AITC 111-2005, *Recommended practice for protection of structural glued laminated timber during transit, storage and erection*¹

AITC 200-2009, *Manufacturing Quality Control Systems Manual*¹

AITC 2004, *Technical Note 18, Evaluation of Checking in Glued Laminated Timber*¹

ANSI 117-2015, *Standard specifications for structural glued laminated timber of soft wood species*²

ANSI A190.1-2017, *Wood products – Structural glued laminated timber*²

APA R540-2013, *Builder tips, proper storage and handling of glulam beams*²

APA Technical Note R475-2007, *Evaluation of Check in Glued Laminated Timber Beams*²

¹ Available from the American Institute of Timber Construction, www.aitc-glulam.org

² Available from the APA, The Engineered Wood Association, www.apawood.org