

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

is an international standards organization that develops and publishes voluntary consensus technical standards for a wide range of materials, products, systems and services.

APA - THE ENGINEERED WOOD ASSOCIATION

is a trade organization representing manufacturers of plywood, OSB, glued laminated timber, I-Joists, Rim Board® and structural composite lumber (SCL). The Association has three main functions: research to improve wood structural panels (plywood and OSB) and other engineered wood products and systems, quality inspection and testing to assure the manufacture of high-quality wood structural panels and engineered wood products, and promotion of engineered wood products and building systems. It was previously called the American Plywood Association and is commonly referred to as “APA.”

CALIFORNIA AIR RESOURCES BOARD (CARB)

is the “clean air agency” in the government of California. Established in 1967 when then-governor Ronald Reagan signed the Mulford-Carrell Act, combining the Bureau of Air Sanitation and the Motor Vehicle Pollution Control Board, CARB is a department within the cabinet-level California Environmental Protection Agency.

COMPUTER NUMERIC CODE (CNC)

machines are electro-mechanical devices that manipulate machine shop tools using computer programming inputs. Machining is a general way to transform a piece of material like plywood and arrive at a finished product, like a wall with cutout doors and windows. CNC relies on digital instructions from a Computer Aided Manufacturing (CAM) or Computer Aided Design (CAD) file. The CNC machine interprets the design instructions into cutting instructions.

CROSS-LAMINATED TIMBER (CLT)

is a wood panel product made from gluing layers of solid-sawn lumber together. Each board layer is oriented perpendicular to adjacent layers and glued on the wide faces of each board, usually in a symmetric way so that the outer layers have the same orientation. An odd number of layers is most common, but there are configurations with even numbers as well. Regular timber is an anisotropic material, meaning that the physical properties change depending on the direction in which the force is applied. By gluing layers of wood at perpendicular angles, the panel is able to achieve better structural rigidity in both directions.

E2 CLT

is a particular CLT layup, as specified in the ANSI/ APA PRG 320 standard, using Machine Stress Rated (MSR) Douglas Fir and Larch lumber to improve the performance of the panel. Mass Ply is often compared to the performance of the E2 CLT, since both utilize machine-graded numbers for input selection.

ENGINEERED WOOD PRODUCTS

are structural wood products that are manufactured by bonding together wood strands, veneers, lumber or other forms of wood fiber to produce a larger and integral composite unit with superior performance characteristics. These high-performance building components achieve predictable and reliable performance characteristics with the efficient use of natural resources.

INTERNATIONAL BUILDING CODE (IBC)

is a model building code developed by the International Code Council (ICC). It has been adopted for use as a base code standard by most jurisdictions in the United States.

INTERNATIONAL CODE COUNCIL (ICC)

evaluation service is one of a number of organizations that studies applications for new proprietary products that fall outside the scope of the model code. Evaluation reports are then issued that indicate product equivalency to specific sections of the code.

LAMINATED STRAND LUMBER (LSL)

is a type of engineered wood with strips of wood — that once would have been considered too weak, small or misshapen to use — pressed together to transform the scrap wood into solid joists and studs. LSL lumber is most commonly shaped into framing boards, but it is also used for other applications.



LAMINATED VENEER LUMBER (LVL)

is a high-strength engineered wood product made from veneers bonded together under heat and pressure. Veneers in a LVL billet are typically constructed in a parallel format. It is used for permanent structural applications including beams and rafters.

MASS PLY PANEL

is a mass timber panel, similar in application to cross-laminated timber, that was developed, produced and patented by Freres Engineered Wood. Layers of structural composite lumber are assembled and glued to produce a panel up to 12' wide and 48' long, meeting the requirements of ANSI/APA PRG 320, and designed to be used in the construction of mid-rise to high-rise structures.

MASS TIMBER

is a product category and framing style characterized by the use of large, solid wood panels for wall, floor and roof construction. Mass timber panels are six feet or more in width or depth.

MECHANICAL, ELECTRICAL AND PLUMBING (MEP)

refers to all trades that lead to livability within a structure, including the penetrations required between floors, in walls or on islands to run the required infrastructure (such as ducting for air distribution, electrical conduit or water and drain lines).

ORIENTED STRAND BOARD (OSB)

is a type of engineered wood similar to particle board. OSB, also known as flakeboard, is formed by adding adhesives and then compressing layers of wood strands (flakes) in specific orientations.

ORIENTED STRAND LUMBER (OSL)

is a composite of wood strand elements with wood fibers primarily oriented along the length of the member, where the least dimension of the wood strand elements is 0.10 inch (2.54 mm) or less, and their average lengths are a minimum of 75 times and less than 150 times the least dimension of the wood strand elements. OSL is one of several structural composite lumber (SCL) types.

PARALLEL STRAND LUMBER (PSL)

is a composite of wood strand elements with wood fibers primarily oriented along the length of the member, where the least dimension of the wood strand elements is 0.25 inch (6.4 mm) or less, and their average lengths are a minimum of 300 times the least dimension of the wood strand elements. PSL is one of several structural composite lumber (SCL) types.

PLYWOOD

is a manufactured wood product. It is a structural material consisting of three or more layers of veneer glued and pressed together with the direction of grain alternating. It is typically sold in sheets of four by eight feet.

PRG 320

is an ANSI/APA standard that covers the manufacturing, qualification and quality assurance requirements for CLT.

SCARF JOINT

is an angled or beveled joint in plywood splicing pieces together. The length of the scarf is eight times the thickness required by PSI.

STRUCTURAL COMPOSITE LUMBER (SCL)

is an engineered wood product designed for structural use. SCL is manufactured from wood strands or veneers bonded with adhesives and created using a layering technique where the outcome is a block known as a billet. Similar to conventional-sawn lumber and timber, SCL products are used for common structural applications and include laminated veneer lumber (LVL), parallel strand lumber (PSL), laminated strand lumber (LSL) and oriented strand lumber (OSL).

TONGUE AND GROOVE JOINT

is a system of jointing in which the rib or tongue of one member fits exactly into the groove of another. A specially designed APA tongue-and-groove panel edge joint is particularly efficient in transferring the load across the joint.

VENEER

is a thin sheet of wood — typically no thicker than 0.125 inch (3 mm) — laminated with others under heat and pressure to form plywood, or used for faces of composite panels. Also called “ply.”

VENEER GRADE

is the standard grade designation of softwood veneer used in panel manufacture. Veneer grade designations for plywood are outlined in product standard PSI-09. Veneer grades for engineered wood products are based on tested strength and density properties.

