A Visual Guide to U.S. Softwood Species & Grades
DOUGLAS FIR / HEM-FIR

Select Structural U.S. SOFTWOODS

Introduction

There are more than 22 commercially important softwood species that are native to the U.S. These species are manufactured into hundreds of products and sold according to specifically defined grades, which are grouped into three basic categories: 1) Structural, 2) Appearance, and 3) Shop/Factory remanufacturing products. This sample pack includes a selection of species and grades from the first two categories for easy comparison of differences.

Additional information about these species can be found on the Softwood Export Council website (www.softwood.org). The site includes species-specific guides and guides detailing Eastern and Western softwood species, specific grades and guides, and other resources.

Softwood Export Council
Portland, OR USA
www.softwood.org
DOUGLAS FIR / HEM-FIR

Select Structural SOFTWOOD SPECIES

Single & Combinations

MAJOR SPECIES & SPECIES COMBINATIONS

California Redwood
Sequoia sempervirens

Douglas Fir - Larch (Species Group)
Douglas Fir
Pseudotsuga menziesii
Western Larch
Larix occidentalis

✱ Eastern White Pine
Pinus strobus

✱ Hem-Fir (Species Group)
California Red fir
Abies mag-nifica
Grand fir
Abies grandis
Mountain Hemlock
Picea engelmannii
Adirondack fir
Picea glauca

✱ Idaho White Pine
Pinus monticola

✱ Ponderosa Pine
Ponderosa pine
Pinus ponderosa

✱ Spruce Pine Fir (Species Group)
Engelmann Spruce
Picea engelmannii
Lodgepole Pine
Pinus contorta
Sitka Spruce
Picea sitchensis
Sugar Pine
Pinus lambertiana

✱ Western Cedars (Species Group)
Alaskan Cedar
Chamaecyparis nootkatensis
Incense Cedar
Libocedrus decurrens
Port Orford Cedar
Chamaecyparis lawsoniana
Western Red Cedar
Thuja plicata

✱ = Photographic product samples of these species and their grades are shown in this guide.

COMBINATIONS

MAJOR SPECIES & SPECIES
### Grade Stamps: Description & Elements

1. **Agency Certification Mark**
   - The grading agency's registered mark. Attest to quality control supervision.

2. **Mill Identification**
   - Reveals the manufacturing mill's identity. It may be a name or assigned mill number.

3. **Grade Designation**
   - Grade name, number, letter, or abbreviation.

4. **Species Identification**
   - Indicates species by individual species or species combination.

5. **Moisture Content & How Seasoned**
   - Indicates the moisture content/condition of seasoning when timber was surfaced at the mill.

#### Typical Grade Stamps Abbreviations

- **BTR**: Better
- **CLR**: Clear
- **COM**: Common
- **CONST**: Construction
- **DF or D.Fir**: Douglas fir
- **FIN**: Finish
- **HEM**: Western hemlock
- **HEM-FIR**: W. hemlock & true firs
- **H-F**: W. hemlock & true firs
- **IND**: Industrial
- **KD**: Kiln Dried
- **MC**: Moisture Content
- **MER**: Merchantable
- **PREM**: Premium
- **PP**: Ponderosa pine
- **R-List**: Export R-List Grading Rules
- **S-DRY**: Surfaced Dry (seasoned)
- **SEL**: Select
- **SEL STR**: Select Structural
- **S-GRN**: Surfaced Green (unseasoned)
- **STAND**: Standard
- **STUD**: Stud grade
- **UTIL**: Utility

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![grade stamp diagram](image-url)
to avoid marred the wood.

Lumber is typically not grade-stamped
suit customer needs. Highest grade
宴会 of standard and custom-sized
Grade lumber is available in a
decorator's installation. Appearance
end uses include paneling, furniture,
each Grade's severity, grading rules:
defined for each lumber grade.
tions and manufacturing imperfections

Products in the “Appearance” category

DOUGLAS FIR / HEM-FIR
Select Structural
APPEARANCE GRADES

Descriptions & Uses

Appearance Grades

Grades range from the highest-clear
are graded for their aesthetic appeal.
DOUGLAS FIR
Select Merchantable
DOUGLAS FIR
R-List No. 1 Merchantable
EASTERN WHITE PINE

Premium
COMMON 4 Ponderosa Pine

DIMENSIONS:
- 5.25" (130 mm)
- 7.25" (184.8 mm)
- 9.25" (235 mm)
Structural lumber is graded based on characteristics that impact its strength. Numeric engineering values, established through testing programs and used for design, are assigned to each species, grade, and size.

The National Grading Rule classifies structural lumber into four classifications. These include:

- **Structural Light Framing**
  - Used in construction, the strongest grades of structural light framing lumber are used for high strength applications. This lumber is available in sizes from 38 – 89 mm thick x 38 – 89 mm wide.

- **Light Framing**
  - Used in general construction applications and available in the same sizes as structural light framing lumber. It is used in wall framing and vertical support applications.

- **Stud**
  - Used in wall framing and vertical applications. This lumber is available in the same sizes as structural light framing lumber and is used in general construction. The strongest grades of structural light framing structural lumber are used for high strength applications.

- **Structural Joists and Planks**
  - Used for floor joists, roof support, and high strength engineering uses. There are special grades available for lumber that is machine stress-rated, and special purpose grades for lumber used for deck construction. There are also grades specific to species such as redwood and cedar. Structural products are always grade-stamped.
The Softwood Export Council is a non-profit trade association made up of lumber grading agencies, industry trade associations, state export development agencies, and universities that work together to promote US softwood products internationally. www.softwood.org