WRCLA 2024 Cedar School

REAL CEDAR

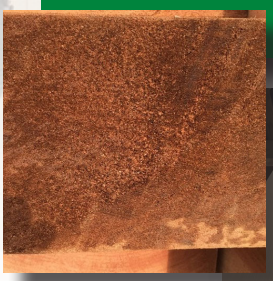
POWERWOOD
Custom Cedar Done Right.

SPECIFYING OF WESTERN RED CEDAR AND YELLOW CEDAR PRODUCTS

- **Notable Differences**
- **Drying requirements**
- **Grade specifications**
- **Size specifications**
- **Manufacturing**
- **Surface finishes**

WESTERN RED CEDAR

- Rot resistance
- Distinct colours
- Highly stable
- Takes stain



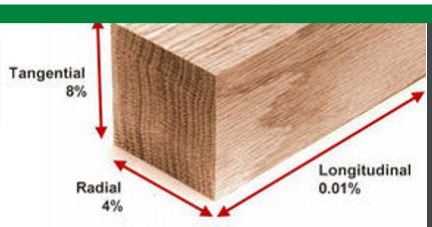
NOTABLE DIFFERENCES

- Colour
- Stability of green vs. kiln dried
- Rot resistance
- Ability to take stain colors

ALASKAN YELLOW CEDAR

- Unique colouring
- Strength MOE: 30% higher WRC | 20% Less than DFIR
- Rot resistance
- Excellent deck product

DRYING REQUIREMENTS



Wood Drying Methods:

- Air drying
- Conventional kilns
- Vacuums kilns
- Radio frequency vacuum kilns
- Steam kilns

WHICH APPLICATION IS BEST?
THEY ALL WORK.

- You can destroy or properly dry any product in each method
- Drying too fast can damage
- Drying to statistically tested moisture ranges is the most important quality control metric. The average and standard deviation combine to tell you how much of the wood is dried to an acceptable moisture content

The range is more important than the average – ie: if you are in Phoenix with an average of 8%, it should be good, but if the standard deviation is 3%, you will have many pieces over 10% and those pieces will continue drying to achieve equilibrium – resulting in shrinking and warping.

- **Wood continues to shrink by ½ – 1% per 4 percentage points MC under the Fibre saturation point (~ 28%).**
- **Wood gets noticeably more brittle as it dries further. Harder to machine and install without checking, chipping and breaking.**

HOW DRY IS DRY ENOUGH?

Wood will try to achieve equilibrium with its climate.

Phoenix 6-10%

Napa Valley 9-13%

Miami 11-15%

Alaska 13-17%

GRADE SPECIFICATIONS

1. Do you want knots?
2. What is your tolerance for natural defects?
3. Does grain orientation matter to your application?

KNOTS OKAY / NOT LIMITED

#2 & Better No Hole

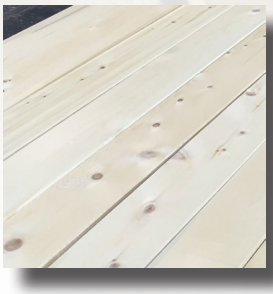
- Rougherheaded grade
- Usually sold green
- Okay for outdoor uses
- Not recommended in yellow cedar – too much warping as it dries

#2 & BETTER APPEARANCE -FOR TIMBER APPLICATIONS

- Can be kiln dried for added value
- Green red cedar – okay
- Free of heart
- Select structural if there is an engineering requirement

SELECT TIGHT KNOT (STK) – SIDING/TRIM/ DECKING

- 1" & 2" finish product
- Kiln dried only
- Not air dried
- Exception some decks
- No heart spec needed



CLEAR (LIMITED KNOTS)

Default to A & Better Clear (allowing 15% B)

- 1" & 2" finish product
- Kiln dried only
- Allows some knots and small defects
- Interchangeable with #2 Clear Spec – which is more common for 3" & thicker specifications

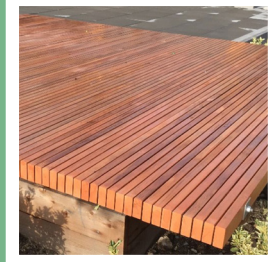
Other Clear Grades

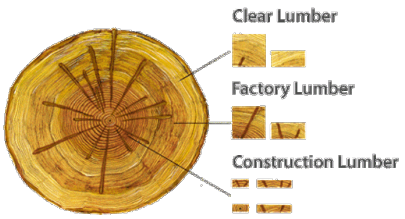
#4 CLEAR
D & BETTER
#4 CLEAR & BETTER
C & BETTER
A & BETTER 15% B / 2 CLEAR
#1 CUT STOCK

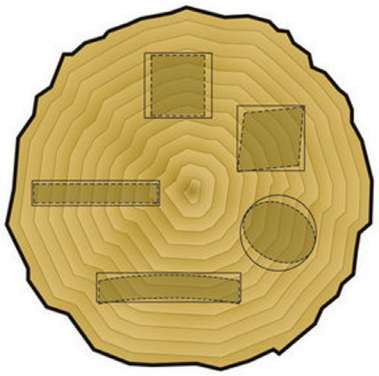
For these, ask for a copy of the grade rule and compare to A & BTR.

Vertical vs Flat vs Mixed Grain

- Default is mixed grain
- All knotty is flat grain, only specify flat grain when specific look is needed in clear
- Vertical grain A & BTR will have less defect than mixed grain due to the way knots form
- Vertical grain is more stable than flat grain







FRESH CUT

AFTER DRYING

SPECIFYING SIZES - MANUFACTURING PROCESS

RECEIVE LUMBER

SORT FOR GRADES, LENGTHS AND/OR WIDTHS

RESIZE LUMBER: RESAW, RIP AND/OR CHOP

STICK MATERIAL WITH AIR SPACES FOR DRYING

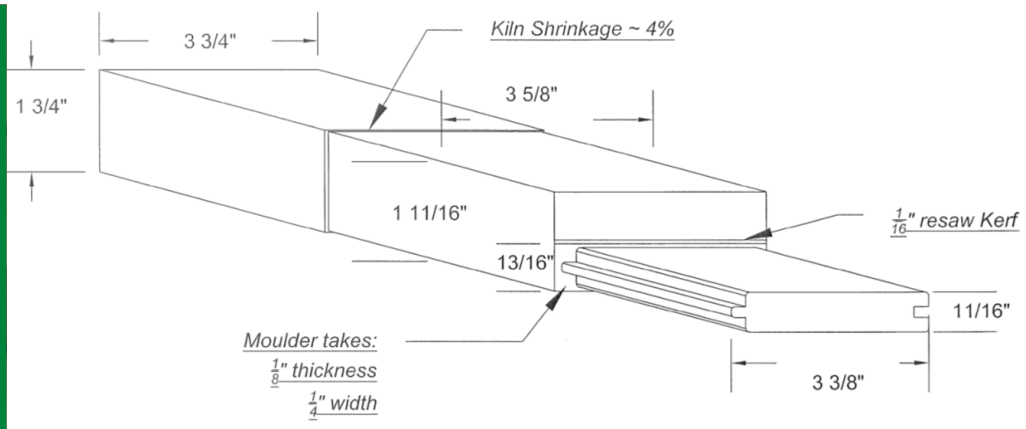
KILN DRY TO SET MOISTURE CONTENT AND STD DEV

REMOVE STICKS TRIM TO UPGRADE PACKAGE

FINISH SAWING THIN KERF PREP FOR MOULDER

SURFACING TRIM TO LENGTH FINAL GRADING

PACKAGE & SHIP



NOMINAL FINISHED SIZES

1"	>	11/16"
5/4"	>	1"
2"	>	1.5"
4"	>	3.5"
6"	>	5.5"
8"	>	7.25"
10"	>	9.25"
12"	>	11.25"

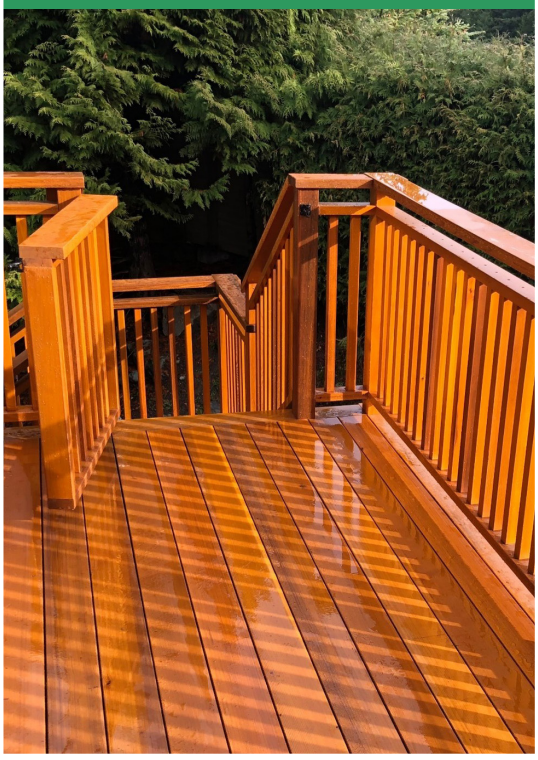
SURFACE FINISHES

ROUGH SAWN
- GREAT FOR STAIN!

- Mill Rough Green
  - Lowest cost option
  - Full Size available
  - Will shrink / warp / check
- Resawn After Drying
  - More uniform finish with fine tooth saw
  - Standard sizes required (Shrinkage, Saw Kerf)
  - After drying = no shrink / warp / check

SMOOTH FINISH

- Smooth face and edges
  - Specify eased or square edges
  - Square edges are brittle and don't take stain well
- Sanding option
  - WRC – for high end finish
  - YC – needs to be sanded for staining



OTHER OPTIONS

- Rougher headed
- Comb face
- Wire brushed
- Custom runs

Thank you for attending 2024 Cedar School.

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We'd love to hear from you. If you have any questions after the WRCLA 2024 Cedar School hosted at PowerWood, please let us know and we will do our best to answer.

Please scan the QR code for the online brochure and more information on Cedar and the PowerWood facility in Agassiz, BC.