



SOUTHERN PINE INSPECTION BUREAU

Quality.Together

RE: SEASONING CHECKS IN TIMBERS

CHECKS ARE DEFINED AS A SEPARATION OF THE WOOD NORMALLY OCCURRING ACROSS OR THROUGH THE RINGS OF ANNUAL GROWTH AND USUALLY ARE A RESULT OF SEASONING. WHEN TIMBERS ARE PLACED IN AN ENVIRONMENT WHICH WOULD TEND TO LOWER THE MOISTURE CONTENT OF THE PIECE, THEN SEASONING CHECKS MAY BE ONE OF THE OUTWARD SIGNS OF ADDITIONAL DRYING.

FOUR IMPORTANT STRENGTH PROPERTIES OF LUMBER ARE BENDING STRENGTH, STRENGTH AS A COLUMN, STIFFNESS AND HARDNESS. THE ASTM STANDARD D-245 IS THE BASIS FOR ASSIGNING ALLOWABLE PROPERTIES (DESIGN VALUES) TO THE VARIOUS GRADES OF SOUTHERN PINE. THESE ALLOWABLE PROPERTIES CONTEMPLATE THE USE OF LUMBER AND TIMBERS IN NUMEROUS METHODS THAT COULD INVOLVE BENDING STRESS, TENSION STRESS, HORIZONTAL SHEAR STRESS OR COMPRESSION STRESS PARALLEL TO GRAIN AND PERPENDICULAR TO GRAIN, OR A COMBINATION OF STRESSES.

SEASONING CHECKS IN NO.1 DIMENSION (2"-4" THICK) LUMBER ARE NOT LIMITED, EXCEPT AT THE ENDS WHERE IT IS LIMITED AS SPLITS. NO.1 TIMBERS (5"X5" AND LARGER) HAVE A LIMITATION ON THE DEPTH OF THE CHECK, 1/3 THE THICKNESS, WIDTH OF THE CHECK IS NOT LIMITED.

THE GRADE OF NO.2 TIMBERS ALLOWS SURFACE SEASONING CHECKS TO BE UP TO 1/2 THE THICKNESS. THERE IS NO LIMIT ON THE WIDTH OR LENGTH OF THE CHECK, ONLY THE DEPTH. WARP OF LUMBER IS RESTRICTED AT THE TIME OF GRADING. WEATHERING, EXPOSURE TO SUN AND RAIN, CAN CAUSE AN INCREASE IN WARPING AND CHECKING.

THE LIMITATION ON SEASONING CHECKS IN TIMBER GRADES IS ONLY TO PROVIDE A BASIS FOR ASSIGNING A HORIZONTAL SHEAR VALUE FOR THE PIECE WHEN USED AS A BENDING MEMBER SUCH AS A BEAM SUPPORTED AT EACH END AND SUBJECT TO A VERTICAL LOAD. WHEN A TIMBER IS USED AS A COLUMN OR POST AND LOADED AT THE TOP, HORIZONTAL SHEAR IS NOT A FACTOR. SEASONING CHECKS NORMALLY ARE ONLY OBJECTIONABLE IN AN AESTHETIC SENSE, NOT BECAUSE OF ANY STRENGTH REDUCTIONS. IF LARGE SQUARES ARE USED (6X6'S, 8X8'S), SEASONING CHECKS CANNOT NORMALLY BE AVOIDED, NO MATTER THE SPECIES OR THE DRYING PROCESS.

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LUMBER DIVISION

