

### **Part One** - Shingle Description

Shingles have smooth sawn backs and fronts. Shingles are produced by sawing blocks on a shingle machine, tilting the block each cut to produce tapered pieces and then trimming the edges.

### **Part Two** - Shingle Definitions

- Butt - the thick end of the shingle.
- Check - any split or separation of the wood. Sun/Butt checks are permitted, in from the butt, up to 3/8 inch.
- Course - a layer or row of shingles in a bundle.
- Crimps - the collapse of the wood cells giving the shingle a caved - in appearance.
- Decay - rot, decomposing wood.
- Exposure - the portion of the shingle that when on the roof is exposed to the weather.
- Exposure line - the line created by the next row of shingles when properly laid on a roof. For No. 1 shingles the exposure line is at 7-1/2 inches, for No. 2 shingles the exposure line is at 6-1/2 inches and for No. 3 shingles the exposure line is at 5-1/2 inches up from the butt.
- Feather Tips - a rough tip caused when the saw comes out the side forming a flimsy, feather like tip.
- Grain - is the directions of the fibers in wood.
  - Cross Grain - the grain runs from the front of the shake to the back within 3 inches of the length of the shake in the area 6 inches up from the butt.
  - Diagonal Grain - the grain does not run parallel to the edge of the shakes. It is a defect if it slants off more than 2 inches side ways in 12 inches of length.
  - Edge Grain - the wood is split or sawn at right angles to the annual rings or growth rings.
  - Flat Grain - the wood is cut with the growth rings.
  - Torn Grain - the fuzzy or whiskered appearance in the face of the shake usually caused by a dull saw.
- Knot - a piece of a branch or limb embedded in the shake. Knots are not allowed in No. 1 shingles.
- Pack - refers to the number of courses of shingles at each end of a bundle. Normally 15/15 pack for 4 bundles per square in a 18 inch wide packing frame
- Tip - the thin end of a shingle.
- Worm/Toredo hole - a hole or passage burrowed in the shake by a worm or insect.

### **Part Three** - Shingle Quality Standards

#### No. 1 Grade 24 inch Royal shingles

- 100% Clearwood - No knots, worm holes, decay or crimp permitted.
- All 100% Edge Grain - No Flat grain, no Cross grain and no Diagonal grain.
- Tip checks are permitted up to 1 inch long, down to 23 inches.

- Graded from the best face.
- Waves and torn fibers are permitted on the back face.

#### No. 2 Grade 24 inch Royal shingles

- 16 Inches clear up from the butt.
- Flat grain and Diagonal grain is permitted.
- Tip checks are permitted up to 4 inch long, down to 20 inches.
- 1 inch of sapwood is allowed on one edge of the shingle in the first 10 inches up from the butt.
- Defects may be up to 3 inches in diameter.
- Total defects must not exceed 1/2 the width of the shingle.

#### No. 3 Grade

- 10 inches clear up from the butt.
- Grain deviations are not defects.
- Tip checks are permitted up to 6 inch long, down to 18 inches.
- Sapwood is permitted.
- Total defects must not exceed 2/3 the width of the shingle.

### **Part Four** - Royal Shingle Size

#### **Lengths:**

#### No. 1 Grade 24 inch Royal shingles.

- 24 inch shingles can be a minimum of 23 inches.

#### No. 2 Grade 24 inch Royal shingles

- 24 inch shingles can be a minimum of 20 inches.

#### No. 3 Grade 24 inch Royal shingles

- 24 inch shingles can be a minimum of 18 inches.

#### **Widths:**

#### No. 1 Grade 24 inch Royal shingles

- The minimum width shall be 4 inches.
- Edges must be parallel - to 3/8 of an inch.

#### No. 2 Grade 24 inch Royal shingles

- The minimum width shall be 4 inches with a minus tolerance down to 3 inches in up to 20% of the bundle.
- Edges must be parallel - to 3/8 of an inch.

No. 3 Grade 24 inch Royal shingles

- The minimum width shall be 4 inches with a minus tolerance down to 3 inches in up to 30% of the bundle.
- Edges must be parallel - to 3/8 of an inch.

**Thickness:**

- The thickness of 4 butts must be 2 inches or greater.
- Butt thickness must be uniform - not thick and thin.

**Part Five** - 24 Inch Royal Shingle Packing

- Total inches of "on grade" shingles per bundle must be greater than 465 inches if packing 4 bundles per square.
- Normal pack for 24 inch Royal shingles is either a) 15/15 pack in an 18 inch frame or 13/14 pack in a 20 inch frame.
- No excessively wide openings in any packed course or row.
- Joints or spaces between shingles in adjoining rows should be broken by placing a shingle completely over the space.
- No overlapping shingles in the same course or row, all shingles must lie flat.
- Shingles are to be packed to the outside edges of the packing frame.
- Each bundle must be identified with a Certigrade or mill grade label according to the proper grade of the shingles.
- The label must be placed under the bandstick or band on the width of each bundle.
- Each pallet must have a packer identification mark. (Pallet Tag)

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# GUIDE TO CSSB-97 GRADING RULES

CONFORMS TO UBC 15-4, CSA 01118.1-97, CSSB-97

## CERTIGRADE® - 24 Inch Royal Shingles

24 INCH ROYAL SHINGLE CHART		No. 1-Blue	No. 2-Red	No. 3-Black
WOOD:	Clear area	All	16"	10"
	Sapwood	None	1"	Yes
	Flat Grain	None	Yes	Yes
	Checks	None	4" (to 20")	6" (to 18")
	Defects Size	None	3"	3"
	Total	None	1/2" width	2/3" width
LENGTH:	Maximum	None	None	None
	Minimum	23"	20"	18"
	Exposure Line	7-1/2"	6-1/2"	5-1/2"
WIDTH:	Maximum	None	None	None
	Minimum	4"	4"	4"
	Under Size %	None	20%	30%
	Minimum	None	3"	3"
	Off Parallel	3/8"	3/8"	3/8"
Thickness Minimum		4 butts equal 2 inches		
Coverage (@ 4 bundles/sq.)		465 inches "on grade" per bundle		
Pack 18 inch Frame		15/15 pack		
Pack 20 inch Frame		13/14 pack		

The CSSB-97 Grading Rules are the grading rules accepted by the International Code Council ("ICC") which publishes the IBC and IRC building codes. These codes are applicable to all Cedar Shake & Shingle products sold in the United States.

Cedar Shake & Shingle products sold in Canada must meet the CSA 0118.1 Standard.

The Cedar Shake & Shingle Bureau requires that its members' products meet the applicable standards. Do yours?