# GRADING RULES CERTIGROOVE MACHINE-GROOVED SHAKES CERTIGRADE REBUTTED-REJOINTED SHINGLES

- 1. Grading of machine-grooved shakes shall be governed by the grading rules for No. 1 grade shingles; grading of rebuttedrejointed shingles shall be governed by the grading rules for No. 1 and No. 2 grade shingles.
- 2. All machine-grooved shakes and rebutted-rejointed shingles shall have parallel edges at right angles to the butts, within a tolerance of 1/16th-inch, except that a maximum of three percent (3%) of the total lineal inches in a shipment may have a tolerance up to 1/8th-inch within the length of the shake or shingle.
- 3. Minimum length of machine-grooved shakes and rebutted-rejointed shingles shall be 3/4-inch less than the published regular shingle length, except that a maximum of 10 percent of the total lineal inches in a shipment may have a minus tolerance not to exceed 1 1/4-inches of the published regular shingle length.
- 4. Minimum width of machine-grooved shakes and rebutted-rejointed shingles shall be 3-inches, with not more than 10 percent of the total lineal inches in a shipment to be 4-inches or less in width.
- 5. Machine-grooved shakes and rebutted-rejointed shingles shall be packed in frames of a minimum width of 19 1/2-inches. Shakes shall be bundled or cartoned in units of sidewall squares, each square to cover 100 square feet of area at the prescribed standard weather exposure.

(a) Shakes manufactured from No. 1 grade 16-inch (XXXXX) shingles to be packed two bundles or cartons, 16/17 courses, per square-or a total of 66 courses per square. Each bundle or carton shall total not less than 600 lineal inches, or 1,200 lineal inches per square, based on 12-inch standard weather exposure.

(b) Shakes manufactured from No. 1 grade 18-inch (Perfection) shingles to be packed two bundles or cartons, 14/14 courses, per square-or a total of 56 courses per square. Each bundle or carton shall total not less than 515 lineal inches, or 1,030 lineal inches per square, based on 14-inch standard weather exposure.

(c) Shakes manufactured from No. 1 grade 24-inch (Royal) shingles to be packed two bundles or cartons, 12/12 courses, per square-or a total of 48 courses per square. Each bundle or carton shall total not less than 437 lineal inches, or 874 lineal inches per square, based on 16 1/2 inch standard weather exposure.

(d) Packaging of rebutted-rejointed shingles shall be optional-either in conventional roof-pack squares or in sidewall-pack squares as set forth in paragraphs (a), (b) and (c), above.

6. The maximum weight of machine-grooved shakes and rebutted-rejointed shingles per sidewall square shall be as follows:

	Weight (Unstained Pounds)			
No. 1 16 inch (XXXXX)	60			
No. 1 18 inch (Perfections)	60			
No. 1 24 inch (Royals)	85			

- 7. Machine-grooved shakes shall be well manufactured, with smooth, reasonably clean-cut grooves which shall run parallel to the edges and which shall be uniform for the full exposed length of the shake. Shakes shall be free from chipped butts and grooving skips.
- 8. In the case of a re-inspection of machine-grooved shakes and rebutted-rejointed shingles, a minimum of any 10 bundles or cartons shall be selected at random as a representative sample of the shipment. The shipment is off-grade if more than three percent of the total lineal inches of shakes or shingles are found to be defective in excess of the tolerances permitted in these grading rules.

# The Carton-Pack Covers WALLS in WALL SQUARE

For example: Four of the traditional shingle bundles will cover a square (100 square feet of area) at the standard weather exposures of 5-inches for 16-inch shingles and 5 1/2-inches for 18-inch. This gives a 3-ply covering. But...wall applications require only a 2-ply cover, therefore permit greater exposures.

## Here's the breakdown of the pack and WALL coverage of the R&R Cartons:

R&R Carton-Pack for 16-inch shingles contains 66 course per carton R&R Carton-Pack for 18-inch shingles contains 56 courses per carton

### Double-coursed wall application (with undercoursing shingles):

One carton, 16-inch, will cover 100 sq. ft. at 12-inch standard exposure. One carton, 18-inch, will cover 100 sq. ft. at 14-inch standard exposure.

#### Single-coursed wall application:

Two cartons, 16-inch, will cover 100 sq. ft. at 6-inch exposure. Two cartons, 18-inch, will cover 100 sq. ft. at 7-inch exposure.

The following table shows the approximate wall coverage (in square feet) obtained at various weather exposures from each 66course carton of 16-inch R&R shingles and from each 56-course carton of 18-inch R&R shingles:

Weather Exposure	6"	7"	7 1/2"	8"	8 1/2"	9"	10"	11*	12"	13*	14*
16-inch	50	59	63*	67	72	76	84	93	100-***	-	-
18-inch	43	50	54	57	61*	64	72	79	86	93	100

\* Maximum recommended single-coursing exposure

\*\*\* Maximum recommended double-coursing exposure

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