

# INSTRUCTIONS FOR: Reinke Shakes LT

(revised 5/8/2020)

(Life Time Shingles)

## REINKE SHAKES

Div. of Jame Kari LLC

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**SAFETY: Roofing is a dangerous job. Of all the construction fatalities, falling off of a roof is a major contributor. Roofing can be deadly. Metal roofs can be slick. Metal edges can be sharp. Some shingles may be oily. Old roofs may be rotted. Skylights may fail if sat or leaned on. Nail guns and other powered equipment can be dangerous. Avoid tripping hazards. Beware of power lines. Use all the latest safety equipment available and comply with all local, state, and federal safety rules and OSHA regulations. Think each step through completely before taking action. Watch out for the actions of others, and how your actions may affect them.**

### Specifications:

1. Reinke Shake LT shingles are: approximately 13 inches wide and 16 1/2 inches long. Other lengths are available, but may or may not carry the same certifications.
2. In the 16 1/2 inch length the shingles lay 16 inches vertical, and 12.5 inches horizontal. There are 72 shingles per square. (9.6 shingles across and 7 1/2 rows high will cover a 10 foot x 10 foot area)
3. For the ridge and hip, the shingles are turned 90 degrees and bent through the center. On ridges and hips, 1 square will cover 96 feet.
4. One square, in the 16 1/2 inch length, aluminum shingle, weighs about 58 pounds. The copper shingles weigh about 138 pounds per square.
5. The metal is either .030, 3105-H22 Aluminum, or half-hard 16 ounce copper. The metal may, or may not, be embossed (textured) and may, or may not, be painted.

### Roof Structure:

The roof structure shall be a minimum of 5/8 inch or 19/32 inch plywood, or 3/4 inches of OSB (oriented strand board) which can be made up of one or two layers to equal the 3/4 or more inches. Sheeting shall be rigid enough to prevent offsets at the joints that could cause tears in the Ice & Water Shield when walking on the roof carrying items. (350 pounds per step minimum)

The nails shall be, **1 1/2" nail CLS 223-A 4d 15deg collated ring shank**, from Reinke Shakes and they shall withstand a **pulling force of 100 pounds minimum**, each, at the depth they will be installed in the sheeting. (a fish weighing scale attached to the head and pulled perpendicular to the sheeting will give a sufficient indication of this) Nails supplied by Reinke Shakes are intended to penetrate the full thickness of the sheeting. Longer nails will be needed if roof venting is used between shingle layers.

The sheeting shall be smooth and clear of any protrusions. Attachment fasteners and clips shall be smooth and flush to prevent puncturing of the Ice & Water Shield.

There shall be no gaps exceeding 3/8 inch (less to meet fire code). If any gaps including the hips and ridges exceed 3/8 inch they shall be covered with valley metal flush with the sheeting to prevent droops or depressions of ice and water shield in the gaps.

## **Underlayment:**

The entire roof shall be covered with self-adhering **Ice & Water Shield of 50 mil minimum** thickness, or **Grace Ultra 30 mil for Metal Roofs**, that has the integrity to last the same duration as that of the shingles. The Ice & Water Shield shall be overlapped, top over bottom, at all joints, and installed to the Ice & Water Shield manufacturers specifications for metal roofs.

No additional underlayment is needed to meet UL-790 Class C Fire rating.

To meet UL-790 Class A Fire rating, the roof must be also sheeted with Densdeck, or Versashield, or another listed item that will provide the equivalent fire protection, before covering with Ice and Water Shield.

## **Drip Edge:**

The bottom of the roof shall have Reinke Shakes .030 drip edge, or gutter apron on it, nailed every 12 inches, or 4 inches in critical areas for hurricane installations. Ends of drip edge shall overlap at least 2 inches. Cut with a tin snips or a cordless jig saw & 32T blade.

## **Rake:**

The rake edges can be treated by bending over 2 corrugations of the edge shingles and nailing them into the side of the roof, or using drip edge, or rake edge, or 'D' trim, and placing it over the Ice and Water Shield, and then shingling over it. Nail every 12 inches, or 4 inches in critical areas for hurricane installations. Ends shall overlap at least 2 inches. Vertical cuts can be made by scoring the shingle with a utility knife 4 times, and then bending the shingle till it snaps apart. For all other cuts use a cordless jig saw.

## **Valleys:**

Valleys shall be installed from minimum .030 inch x 16" coil stock sections that are no longer than 8 foot in length. On roofs with more than 4-12 pitch, a 'W' shall be bent vertically up the center. All nailing of the valley shall be at 1 inch from the edge. This nailing shall be covered by the shingles. The valley metal shall be pushed tightly into the angle of the valley, of the sheeting, so that no void is left that would let large hail push through the metal. A 4 inch gap between the shingles of opposite surfaces, shall be maintained in the center of the valley. Reinke Shakes can be easily cut with a cordless jigsaw and a 32 tooth blade. Some roofers leave the shingles a bit long, put a wood lath under the shingle edges, saw the shingles straight using a power saw with a CARBIDE tipped blade, remove the lath, and then hammer the nails to pull the shingles the rest of the way down tight. Wear safety glasses and other safety gear - metal chips will fly.

## **Layout:**

A chalk line 16 inches above the bottom edge of the roof shall be made to indicate the top of 16 1/2 inch tall shingles. If shingles are of different length, the line shall be adjusted accordingly. Every 16 inches above that shall be lines for additional rows. This will keep the shingles top and bottom edges overlapped by 1/2 inch. Vertical chalk lines shall be placed at 13" and 19" from the left edge of the roof to keep the alternating rows started at 6" offset from one another. Additional vertical lines at 10 foot intervals will help to keep things straight. To help offset each additional row, there is a dimple in the center top of

each shingle that lines up with the 1/2 inch wide flat area.

Shingles shall overlap approximately 1/4 inch side to side leaving the 1/2 inch flat area to show for cosmetic reasons. On the first, lowest row, **always hold a shingle (up side down) half over the first shingle and half over the second shingle to space them correctly, or use a Reinke Shake spacer tool.** Rows may be installed with shingles exactly vertical of one another, or offset 1/2 shingle width, or any other distance that gives a desirable look. For siding designs, the shingles may be stair-stepped, provided they have the minimum overlap. Vertically the shingles overlap 1/2 inch.

### **Nailing:**

The shingles shall be air-nailed with color-matched nails provided by Reinke Shakes, **1 1/2" nail CLS 223-A 4d 15deg collated ring shank, or longer.** Each full shingle shall have a nail within 1/2 inch, in any direction, of the following dimensions: 4 inches above the lower edge, 3/4 inch from each side, and 2 additional nails evenly spaced between. This is 4 nails total in each shingle. The nail heads are exposed.

Any shingle vertically longer than 16 1/2 inches shall have additional row(s) of nails, spaced every 12 inches, or closer, vertically above the first row of nails. The corners of the roof, and other critical areas, in hurricane zones, shall have nail rows no farther than 10 inches apart.

Nail guns shall be adjusted to securely hold the shingles tight, but to not cause any denting or deflection of more than 1/8 inch at the nail area. Nails may penetrate the shingle on the low, or on the high, or even on the side of the corrugations.

### **Hip and Ridge:**

For the ridge and hip, the shingles are turned 90 degrees and bent through the center. For ridges and hip, 1 square will cover 96 linear feet. If there is any gap in the sheeting exceeding 3/8 inch, it shall be covered with valley metal before the ice and water shield. Vertical cuts can be made by scoring the shingle with a utility knife 4 times, and then bending the shingle till it snaps apart. For all other cuts use a cordless jig saw.

### **Gutters:**

Gutters, if used, shall be install such that if a long straight edge is placed on the roof surface and extended past the lower edge out at the same slope, for a foot or so, it will not touch the gutter, and furthermore the gutter shall be low enough that there is a minimum of 3/8 inch gap from it. This will prevent sliding ice or snow from tearing off the gutters, but rain will still fall into them.

### **Roof Jacks:**

Leave out a shingle wherever a roof jack needs to go. Also leave out the 4 nails (2 of each shingle) in the 2 shingles directly above the absent space. After use, simply remove the nails or screws holding the roof jack. Fill the nail holes with 50 year caulk. Slide in a new shingle and **MAKE SURE YOU DO NOT CUT OR TEAR THROUGH** the Ice and water shield while installing a shingle. Nail the shingle, and the rest of the two shingles above.

End of Reinke Shakes LT instructions.