

Copper Sheet Into Copper Shingles: Fresh Approach to Quality Roofing

Sensing a growing demand for elegant, high quality roofing, a national manufacturer of aluminum roofing shingles has recently introduced a line of copper shingles that can be installed up to four times faster than a conventional standing-seam copper roof.

"Because of the speed of installation, the home owner is putting his money into product quality rather than into labor," explains Joe Zappone, head of Zappone Manufacturing Co., Spokane.

"All you do is snap two copper shingles together, then put two copper nails in. I wanted a system anyone can install—meaning no sheet metal man, and no soldering," he continues.

Long Life of Copper

Despite the speed of installation, Mr. Zappone concedes the cost of his copper shingles is still higher than non-copper roofing, but feels this is more than compensated for by the "extraordinary" life of the copper roof.

"Compared with copper, all other roofing materials are temporary, I tell my customers. So why install a temporary roof, when you can get a roof that will last a lifetime and beyond," he declares.

Mr. Zappone estimates the installed cost of his copper shingles at from \$3.80 to \$5 a square foot, or from \$7,600 to \$10,000 for a 2,000 square-foot roof, depending on location and the geometry of the roof line. Installation would take one man no more than three days from "putting the felt down to installing the last ridge cap."

Depending on where in the U.S. the installation takes place, this cost compares to a range of from \$2.50 to \$5.25 a square foot for tile, around \$3.25 for slate, from \$1.40 to \$1.75 for cedar, \$1 to \$1.50 for painted steel sheet, and \$1.40 to \$2 per square foot for Mr. Zappone's own aluminum shingles.

Pointing up the longevity of copper roofing compared with other materials, Mr. Zappone points out that sun, rain, and dryrot are the villains in cedar roofing; that ice is damaging to tile; that slate breaks if you walk on it and is difficult to replace; and steel sheet scratches and then rusts.

"I don't talk composition (builtup asphalt or bitumen). Of all temporary roofs, composition is the most temporary," he declares. Mr. Zappone's chief marketing strategy at the moment is to reach the builder through the architect by direct mail, sales calls, and exhibits.

"The market is there. Both the architect and the home owner say, 'I just love copper.' It's an emotional thing, really," he explains.

Eventually, Mr. Zappone hopes to sell his copper shingles directly to the consumer just as aluminum shingles are sold now, through home improvement centers, and roofing and siding dealers.

Interior Shingles

"This will be even more feasible when interior applications of my copper shingles become more established, such as covering walls behind home bars, under kitchen cabinets, and as a decorative fireplace treatment," he says.

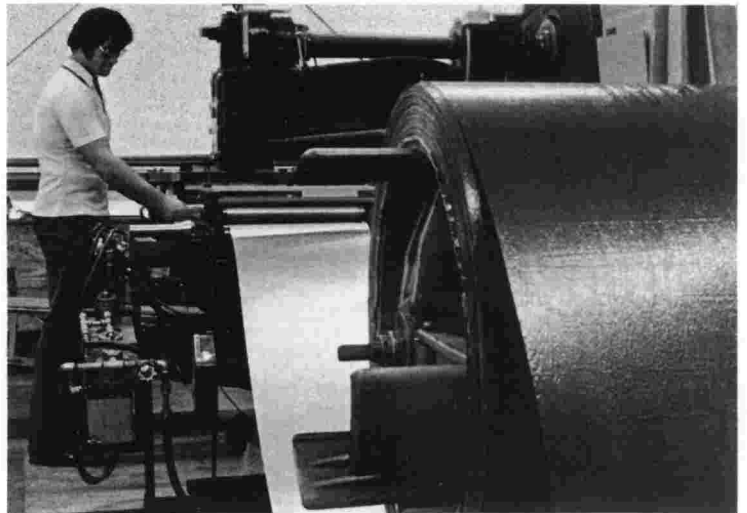
Mr. Zappone's copper shingles are 99.9% pure copper, measure 8 1/2 inches by 15 inches, interlock fully on all sides, and are secured directly to the roof deck by two concealed copper nails. They are textured in a stucco pattern for extra strength, and feature a unique interlocking system that adapts to thermal expansion and contraction. In addition, they feature a flat "shadow" line in the center of the shingle that permits them to be walked on after installation with out damage. The shadow line also adds aesthetic interest.

In addition to the copper shingle, the total roofing system includes the gable edge, starter strip, "J" channels, flashing, and ridge cap all copper, of course.

Two noteworthy recent installations of the Zappone copper shingles are on a new 21,000 square-foot community center in West Central Spokane, and a new 4,500 square-foot copper roof for a turn-of-the-century, six-bedroom home in the exclusive Rockwood section of Spokane. \$1.3 Million Center.



This 8 1/2-inch by 15-inch copper shingle—99.9% pure copper—is the heart of a copper roofing system designed and marketed by Joe Zappone, head of Zappone Manufacturing Co., Spokane. Behind Mr. Zappone is the new 21,000 square-foot Spokane community center topped with his copper shingles.



Copper for the Zappone copper shingles arrives at the Spokane factory 26,000 pounds at a time in 16-inch wide, 2,000-pound coils of strip, as seen here.

The dramatically contemporary, 1.3 million dollar community center includes a gymnasium, swimming pool, young people's center, day-care facilities, and meeting rooms for the neighborhood.

Copper roofing's visual properties and long life were highly desirable in the case of the community center because of the center's special character, says architect Dennis N. Young of Environomic Design, Spokane.

"A maintenance-free roof of extreme durability was essential to this community center because of the unique financing involved. Through an agreement with the city, the community center must pay its own way by renting out a portion of its space to various community groups. If the center fails to meet its maintenance costs, the building ownership reverts to the city," the architect reports.

The physical properties of copper roofing also fit the special needs of the building.



Seen on a new copper shingle roof is manufacturer Joe Zappone, who says that because of the installation speed possible with his copper shingles, the home owner is putting his money into product quality rather than labor.

"This was a highly publicized, warmly welcomed addition to the community, with television stars, politicians, and other national figures attending the opening. The shining, 'penny bright' copper roof was an appropriate symbol, therefore, of the first few months of this glamorous attention-winning new facility. But also part of this scenario was the fact that once the center settled down to 'real life,' the roof would begin to darken, to become more subtle, and to fit in better with the understated, earth tones of the building itself," the architect explains.

What was not anticipated, however, was that the eruption of Mount St. Helens would put an inch of ash on the roof, and speed up the patination process by about five years.



This turn-of-the-century, six bedroom home has a new 4,500 square-foot copper shingle roof from Zappone Manufacturing Co., Spokane. Owners of the copper-roofed house report "All the neighbors, even people just driving by, stop and say, 'Boy, that's really beautiful. Congratulations.'"

"But, no problem," Mr. Young says, "the roof is well on its way to developing that rich patina that architects have always loved, and more and more Americans are beginning to appreciate."

The copper shingled roof in the huge, turn-of-the-century home was installed after the Mount St. Helens' eruption, but also began developing a rich patina rather soon, report John and Suzi Stone, the young owners of the house.

"The copper roof started to tone down in about six to eight weeks. But even from the beginning, we knew we had made the right choice. All the neighbors, even people just driving by, would stop and say, 'Boy, that's really beautiful. Congratulations!'"

During the nine years he has been in business, Mr. Zappone has doubled his sales volume annually.

"In 1975 after reading in 'Copper Topics' about a new lightgauge, high-strength copper roofing material called 'Tough 12,' I decided to add copper shingles to my line-but to go to an even lighter gauge, if feasible," he says.

After trying various bends and embossings for his new shingle, he then began to experiment with -lighter copper gauges, but found both eight-ounce and nine-ounce copper too light.

Works Beautifully

"I finally settled on 10-ounce copper, the lightest, thinnest gauge of any metal I know of that's used in roofing. Yet it works-works beautifully," Mr. Zappone declares.

Mr. Zappone spent one year refining his copper shingle, and two years developing the equipment to produce it.

The copper sheet for Mr. Zappone's shingles arrives at his Spokane plant 25,000 pounds at a time in 16-inch wide, 2,000-pound coils, already embossed at a facility in Chicago.

"We can punch out 10,000 copper shingles in an eight-hour shift with only one operator," Mr. Zappone declares.