

ROOFING REVIEW

An Overview of Current LIGHTGUARD Applications

This Is The Roof That Jack Built For The New Cherokee Corp.

The roof systems on textile manufacturing facilities must solve some very specific problems and no one knows this better than Jack Standridge, engineer and Assistant Vice President of the New Cherokee Corp., just outside Knoxville, Tennessee. Except for the 6 years spent pursuing a degree in Engineering at Clemson University while employed at a power company, Jack has been working in textiles since the age of 16.

"My team and I are responsible for keeping the average fluctuation of temperature and humidity inside this plant to a minimum of $\pm 2^{\circ}$ (%). Otherwise, the cotton gets too dry or too wet. Cotton, under these conditions, breaks and wraps around the rollers. As a result, the looms must be shut down and the string retied. The time lost retying strings slows down production and that means profit losses."

Another problem that Jack and his team must contend with is how to protect the large investment in technology that produces what he calls "the best quality shirting in the world." In an industry that traditionally competes on price to the penny, any damage to high-tech equipment or expenses resulting from plant shut-downs due to water damage from a failed roof are unacceptable.



L to R: Jack Standridge, Asst. VP/Engineer, The New Cherokee Corp.; Terry Clear, VP Technical Services, T. Clear Corp.; Ed Morris, Tennessee Roofing, a T. Clear authorized contractor. Standing at a juncture of an older LIGHTGUARD section and latest section.

Jack Uses Experience And LIGHTGUARD To Solve Roofing Problems

When Jack first came to The New Cherokee Corp. in 1981, he found roof problems that were typical of flat roof systems. The first thing he did was to tour other flat-roofed buildings in the area. He discovered that the problems of flat roofs were associated with expansion and contraction. At this point, Jack decided to solve these problems with a Protected Membrane Roof (PMR)

such as the ones he had encountered in his past work experience at Milliken Co. Jack then hired a South Carolina roofing company to put down the first PMR section—a BUR of mop-down felts and rock ballast—in November, 1981, just ahead of a 3" snowfall. A week later, the snow had melted everywhere except over the PMR section of the roof. This convinced Jack that the sections where the PMR had been placed

LIGHTGUARD[®]
Protected Membrane Roof Insulation



A view of the latest LIGHTGUARD section with a typical maintenance cart. Showing are just a few of the many penetrations at The New Cherokee Corp.

were no longer experiencing heat loss. Jack felt he had found a possible solution to controlling the temperature and humidity in The New Cherokee Corp. plant.

However, the footpaths Jack had laid with pavers did not solve all the problems later caused by maintenance traffic. Jack says, "If you drop a motor or a wrench on a conventional BUR the membrane will be broken. The resulting leak will show up 30 or 40 feet away from the crack. This creates a time-consuming process of locating the actual spot on the roof to be repaired." So in 1984, Jack contracted Tennessee Roofing to lay the first of 250,000 square feet of LIGHTGUARD on the roof of The New Cherokee Corp. "To date, the yearly maintenance costs consists of painting the parapet wall. We have had no other problems with our LIGHTGUARD system."

LIGHTGUARD Protects Membrane, Saves Energy

LIGHTGUARD ballasted roof insulation is comprised of 2-foot by 4-foot panels of 2-inch or 3-inch high-compressive strength Styrofoam with a 3/8-inch latex-modified concrete facing. The tight, closed-cell structure of the foam insulation panels

resists all forms of water penetration and protects the roofing membranes from heat, ultra-violet rays, temperature swings and freeze-thaw cycles. Ed Morris of Tennessee Roofing says, "I have removed LIGHTGUARD panels to install penetrations on jobs that have been down 8 to 10 years and the membrane looks like the day it went down."

The LIGHTGUARD panels, tongue and grooved on the long edges and installed in a staggered arrangement, serve as both insulation and ballast. Once installed, LIGHTGUARD offers an attractive appearance and a smooth, easy-to-walk-on surface.

While stone- ballasted PMR systems weigh 11 pounds per square foot, LIGHTGUARD weighs 4.5 pounds per square foot and is ideal for installation of single-ply and built-up roofing requiring a lighter weight roofing system. Though lightweight, LIGHTGUARD is durable and will withstand winds of 70 miles per hour and above. Free of CFC, LIGHTGUARD is an environmentally responsible product.

System Goes On Easily

LIGHTGUARD is easy to apply—there is no need to adhere panels to the roof membrane or use fasteners that can puncture the

membrane. There is also an opportunity to reuse the LIGHTGUARD panels in the event of membrane failure, renovation or vertical expansion. LIGHTGUARD Ballasted Roof Insulation eliminates damage from wind-blown rocks from atop the roof because LIGHTGUARD does not require the use of crushed stone or gravel.

Since 1981, Jack Standridge has completed 98% of the renovation of the roof at The New Cherokee Corp. "When the final 2% is completed, I don't expect to see this roof again for another 20 years and by then I will be retired." Jack considers LIGHTGUARD the long-term solution to his roofing problems. A LIGHTGUARD Ballasted Roofing System has prevented damage to his "process" and left him more time to concentrate on production maintenance instead of roof maintenance. "It's the right way to do it. It eliminates problems for people coming along behind me. They shouldn't have to deal with something I did wrong." Ed Morris, who has overseen all of the LIGHTGUARD put down at The New Cherokee Corp., would agree. "I don't know of any problems that I have had with a LIGHTGUARD roof."

LIGHTGUARD has been used by industry, government installations, schools and universities, medical facilities and textile mills in the United States since 1976, when FinPan Inc. began manufacturing the product. LIGHTGUARD is now sold, marketed and distributed by FinPan's subsidiary, the T. Clear Corporation.

For technical information or a list of nationwide manufacturer's agents, call T. Clear Corporation at 1-800-544-7398.



P.O. Box 416
3255 Symmes Road
Hamilton, Ohio 45012

LIGHTGUARD® is a registered trademark of T. Clear Corporation.
©1994 T. Clear Corporation