

ROOF REPORT



Cookie & Cracker Baking Facility Topped with New Roof

The cookie and cracker market in the U.S. is a \$10 billion industry. With more than 8,500 individual brands, nearly 98% of all U.S. households purchase cookies and crackers. Cookie and cracker manufacturing operations typically run around the clock and cannot be disrupted. Therefore, working in this environment is highly challenging and requires the utmost in professionalism and care. So when it was time to replace the roof on a large cookie and cracker baking facility, careful planning and execution were critical for success.

The project involved re-roofing approximately 110,000 square feet on two buildings at a large

commercial baking facility in the midwest. One roof was about 35,000 square feet, the other was approximately 75,000 square feet.

According to the roof consultant on the project, the roof over the smaller storage facility where finished goods are kept is on a structure nearly 90-foot tall. The larger roof, over the main bakery, is on a lower structure, only a few stories tall. Both had interesting and unique challenges to overcome.

The taller storage facility is an aging metal building with a slightly sloped metal roof deck, no parapet walls, no gutters and few penetrations. The main bakery building, which was built in the 1940s, has a

poured gypsum deck over gypsum form boards with no parapet walls, a 2-in-12 slope and a fair number of flue stacks, exhaust fans and other penetrations. Both buildings had deteriorating built up roofing systems that were no longer useful.

A large Detroit-based roofing contractor was hired to tear off and replace the roofs on both facilities. The firm specializes in built-up, modified and single-ply commercial systems and has completed work in more than eleven states since its inception in the early 1990s.

According to the firm's project manager for the job, the new roofing system included two layers of 1.6-inch polyisocyanurate insulation,

PROJECT SPEC

LOCATION
Midwest

DATE
September 2008

SIZE
110,000 sq. ft.

OMG PRODUCTS
**AccuTrac
PaceCart 2
OlyBond500**

The roofing contractor elected to use two productivity tools supplied by OMG...the AccuTrac insulation attachment tool and the PaceCart 2.



½-inch of Securock® covered by one ply of smooth surface APP modified bitumen Derbibase, and a white granule surfaced Derbicolor GP-FR cap sheet, manufactured by Performance Roof Systems.

To complete the project, the roofing contractor elected to use two productivity tools supplied by OMG Roofing Products of Agawam, Mass.: the AccuTrac® insulation attachment tool and the PaceCart 2™.

On the taller building, the crew removed the existing roofing system down to the last layer of insulation and then installed the new system over the top. The firm's standard operating procedure is to use the AccuTrac system whenever possible because they feel that it is the most productive method for installing insulation.

AccuTrac is a stand-up automated insulation attachment tool that can help lower installation costs and improve productivity. In one motion, the roofer positions the plate and drives the fastener for proper installation, doing a job that normally takes two.

On that portion of the project, the first layer of polyisocyanurate insulation was mechanically attached to the metal deck with 4.5-inch long, number 12 standard roofing fasteners. According to the project

manager, the roofing crews are very familiar and comfortable using the AccuTrac tool, which is easy to use and maintain and the preferred method doing business.

In addition to productivity benefits, AccuTrac is a healthier alternative since it does not require the roof mechanics to continually bend over or kneel to install the fasteners. Repeated bending and kneeling can cause soft tissue injuries called musculoskeletal disorders or MSDs which can be debilitating. Ergonomically designed tools such as AccuTrac make handwork easier resulting in less fatigue and reduced risk of MSDs, according to one recent study.

The second layer of polyisocyanurate insulation and the Securock® cover board were both applied using OlyBond500® Insulation Adhesive.

The main bakery houses several ovens, each over 300-feet long. The ovens are each capable of producing nearly 20,000 crackers per minute and consume more than 7 tons of flour each hour. The roof assembly over the baking facility is essentially the same as on the storage building, except that due to the heat over the ovens, that portion of the roof is not insulated.

While mechanically attaching the base insulation on the storage building was not an issue, mechanically fastening the cover board over the main baking facility was not a viable option for this portion of the project. Instead, the contractor adhered the cover board to the roof deck over the bakery using OlyBond500 Insulation Adhesive.

OlyBond500 is a low VOC, dual component, low-rise, polyurethane foam adhesive for new and re-roofing applications. It can be used with most common roof decks as well as to adhere layers of insulation, as in this case. The adhesive is Factory Mutual, Underwriters Laboratories, Miami Dade and Florida Building Code approved, and does not have any fumes or noxious odors to disturb building occupants, which was another important consideration for this project.

In total, the project required more than 1,200 gallons of OlyBond500 Adhesive, and took four months to complete, by a crew of 10 to 12.

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