

Georgia-Pacific Tissue Mill

Project Details:

Total Tear Off

Isocyanurate Insulation

Fully Adhered

Dens-Deck Prime™ Insulation

Fully Adhered

Carlisle Sure-Weld

Fully Adhered

180 Pipe Penetrations



Before roofing work.

Roofing project by D. C. Taylor Co.



Outstanding workmanship overcomes three unique challenges.

1. Area under roof is used to produce tissue products such as Angel Soft®, Brawny®, Quilted Northern®, and Sparkle®. To protect the integrity and quality of their products, Georgia-Pacific was extremely concerned about construction debris and water leaks during and after the roof installation.
2. Access areas next to the roof were limited. Adjacent roadways and railroad tracks could not be blocked during the reroofing process.
3. Facility is located near the East coast. Georgia-Pacific was concerned about uplift pressures on the roof during high winds and hurricanes.



1. Protecting the inside of the mill from metal shavings and leaks.

Instead of using mechanical fasteners to attach the insulation boards to the steel deck, D. C. Taylor used an advanced insulation adhesive.

This eliminated the need to drive 66,000 fasteners in the 134,000 sq. ft. roof, thus avoiding the danger of metal shavings falling into the inside of the production facility and the possible contamination of tissue products.



Because the mill operates 7 days per week and 24 hours per day, D. C. Taylor Co. initially considered installing interior plastic sheeting to protect the inside of the facility from debris and water. Because of the size of the area that needed protection, the costs, and the potential impact on production – D. C. Taylor Co. implemented a unique installation process on the outside of the facility.

When you drive a fastener through a steel deck, metal shavings can be created and fall to the interior. Since the existing roof had a steel deck, Georgia-Pacific didn't want to utilize mechanical fasteners. D. C. Taylor Co. was able to use Carlisle Fast 100 low rise foam adhesive to securely adhere the insulation and Dens-Deck Prime™ to the steel deck.

Extra care and skilled workmanship was required to flash and seal the 180 pipe support penetrations on the roof. All flashing work was completed on a daily basis and the roof was sealed each night because of the unpredictable rain patterns common in the Southeast.



2. Minimizing interruptions during roofing installation.



Black discoloration on roofing material is caused by blowing coal dust from nearby coal storage area due to high winds.

D. C. Taylor Co. utilized a crane on site full time to load and unload materials from the 54 foot tall roof. This unique process ensured that roadways and tracks adjacent to the building were never blocked during the reroofing process and there were no disruptions to Georgia-Pacific's operations.

The D. C. Taylor Co. crew leader met daily with Georgia-Pacific maintenance supervisors to minimize interruptions inside the facility. Work areas were flagged off to protect Georgia-Pacific employees, equipment, and products during installation.

Installation steps.

- Removed rock ballast, EPDM, and a layer of two-inch isocyanurate insulation. Exposed steel deck.
- Securely adhered new isocyanurate insulation to the steel deck with Carlisle Fast 100 low rise foam adhesive.
- Georgia-Pacific supplied the Dens-Deck Prime™ roof insulation for installation on their roof. Dens-Deck Prime™ delivers high performance ratings for fire, wind uplift, puncture and moisture resistance.
- Installed fully adhered Carlisle Sure-Weld white 45 mil TPO membrane.



3. Reducing exposure to wind uplift.



Georgia-Pacific was concerned about wind damaging their new roof. Their facility is unusually tall at 54 feet and is also located in a potential hurricane path. Wind uplift forces are greater at corners and perimeters of the roof.

In addition to the fully adhered system, D. C. Taylor Co. installed interlocking concrete pavers in a 20 foot wide area next to a perimeter wall that faces the ocean winds. This system provides additional resistance to wind uplift pressures.

Because the mill is located in a potential hurricane path, wind uplift was a great concern for Georgia-Pacific. D. C. Taylor Co. was able to install a roof system that will be warranted in winds up to 90 miles an hour.



Project summary.

Georgia-Pacific chose D. C. Taylor Co. based on their experience and successes on similar roofing projects.

The D. C. Taylor Co. crew worked closely with Georgia-Pacific maintenance supervisors to minimize interruptions to production inside the facility. They used a unique installation process to ensure that no construction debris could fall into the the equipment or products below. They also made sure that all penetrations were sealed to prevent water leaks during roof installation.

The Georgia-Pacific Dens-Deck Prime™ roof insulation and Carlisle roofing system installed by D. C. Taylor Co. gives this tissue mill a reliable roof that will withstand heavy rains and high winds.

The D. C. Taylor Co. project manager on this job was Jim Stander. Crew leader was Wilmore King. Their crew's workmanship will help Georgia-Pacific continue to produce high quality tissue products for consumers around the world.

About D. C. Taylor Co.: With more than 50 years of commercial and industrial roofing experience, D. C. Taylor Co. provides responsible roofing, inside and out, by delivering expert roofing and OmegaSTARRSM roof retention services needed to keep its clients' facilities protected and secure. D. C. Taylor Co. has more than 60 service and roofing crews and five service areas: Atlanta, Ga.; Cedar Rapids, Iowa; Chicago, Ill.; Concord, Calif. and Phoenix, Ariz.; the company has been ranked among the nation's largest industrial roofing contractors for over 20 years.

Commitment to safety.

This Georgia-Pacific Tissue Mill received the 2003 Pulp and Paper Safety Association award for Best Record, Category I, for paper mills.

D. C. Taylor Co.'s stringent safety policies fit well with Georgia-Pacific's commitment to safety. A full site-specific safety plan was developed by the D. C. Taylor Co. Safety Director prior to project commencement. All safety measures as outlined in the plan were utilized and maintained throughout the project.



D. C. Taylor Co.
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Responsible roofing  inside and out.