

PPG PITT-THERM® 909 spray-on insulation

Provides critical CUI prevention in
paper mill expansion project

CASE STUDY

Customer Overview

Georgia-Pacific is a leading manufacturer of pulp and paper products, with a diverse portfolio of consumer goods, packaging and building products. Alabama River Cellulose (ARC), a part of GP Cellulose, is one of the largest pulp mills in North America. From its campus in southwest Alabama, ARC produces softwood fluff and market pulps which are key ingredients in absorbent products such as diapers and hygiene products, as well as paper tableware, facial tissue and more.

Georgia-Pacific announced a major expansion and modernization plan for the ARC facility to meet increasing global demands for softwood pulp products and reduce the mill's carbon intensity. To reach their operational goals, the company needed coating systems that could deliver consistent thermal management and maximize service life throughout the challenging paper mill environment.



Project Challenge

The expansion, named the ARC Mockingbird Project, aimed to streamline production capabilities, improve energy efficiency and increase annual output to approximately one million tons of fluff and market pulps. The high-moisture conditions present in the mill meant that Georgia-Pacific faced significant risks for corrosion under insulation (CUI) on manufacturing equipment.

Due to the digestion and washing processes needed to process pulp, it is extremely difficult to keep mechanical insulation dry. Moisture that gets trapped in mechanical insulation facilitates CUI, which leads to increased maintenance and repair frequencies for pipes and other assets. In addition, the manufacturing processes at ARC include high-temperature components, meaning that any insulation solution had to be compatible with high temperatures to promote process stability.

The Solution

PPG recommended PPG PITT-THERM® 909 spray-on insulation coating for the ARC Mockingbird Project. PPG worked closely with Georgia-Pacific to conduct thermal calculations and identify areas where the spray-on insulation coating could provide benefits.

PPG Pitt-Therm 909 was applied to piping, tanks and vessels throughout the mill's new digester and boiler systems.

PPG PITT-THERM® 909

The Benefits

PPG *Pitt-Therm* 909 offers high-temperature resistance, hydrophobic properties and efficient application characteristics. It has very low water absorption, demonstrating lower moisture uptake than certain mineral wool commonly used in mechanical insulation. It also offers direct-to-metal and high-build capabilities that may provide advantages over certain traditional spray-on insulation coatings.

Its fast dry times supported Georgia-Pacific's construction schedule. PPG *Pitt-Therm* 909 can enable faster cleanup operations with a dry-fall formula that helps reduce overspray. It can be applied in one or two coats for a total thickness of up to 500 mils, which may help maintain continuous insulative performance and reduce energy losses.¹

PPG *Pitt-Therm* 909 coating advantages:

- Dry-to-touch in under 1.5 hours at 77°F (25°C)
- Withstands temperatures of up to 500°F (260°C)
- High-build thickness up to 250 mils per coat
- Helps maintain surfaces safe to touch up to 310°F (154°C)
- Very low thermal conductivity designed to support energy efficiency (K-value rated at 0.049 via ASTM D7984)

The Result

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¹ Based on ASTM C680 calculations.

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