

ExxonMobil upgrades tank terminals with Raychem Trac-Loc insulation solution for superior performance, energy efficiency, and longevity

Mission Critical Solutions in Biofuels



PROJECT DETAILS

**Applications:**

Replacement of traditional tank insulation with innovative Trac-Loc insulation system on large storage tanks containing temperature sensitive biofuels and chemical fluids

**Location:**

Rotterdam (NL), Antwerp (BE), Fawley (UK)

**Contract Scope:**

Engineering, Procurement, and Construction (EPC)

**Technology:**

Trac-Loc tank insulation panels using PIR (Polyisocyanurate) closed-cell insulation material and aluminium cladding

**Date:**

3 different projects completed between 2020–2024 (actual installation takes only 6–8 weeks)

KEY CHALLENGES

The biggest obstacles faced by ExxonMobil, one of the largest international oil and gas companies, were corrosion under insulation (CUI) within their tank infrastructure and increased energy costs over time.

CUI poses a critical threat to the integrity of tank insulation systems, leading to compromised performance, increased maintenance costs, and heightened safety risks. Conventional insulation materials, such as mineral wool, are vulnerable to moisture absorption, which causes corrosion on the underlying tank surface and diminishes their thermal insulating properties. This leads to higher energy costs and CO2 footprint to maintain the stored fluids at the right temperature.

Moreover, the installation of conventional insulation requires a lot of manpower and scaffolding, significantly increasing project duration and costs. This extended installation process not only heightens operational disruptions, but also develops safety concerns associated with more onsite activity and material handling.

Therefore, ExxonMobil selected the innovative Trac-Loc insulation system to upgrade 3 tank terminals, addressing the CUI problem, reducing installation cost & downtime, and lowering energy costs during operation.

SOLUTION

Chemelex's innovative Trac-Loc tank insulation system significantly reduces the potential for CUI, reduces the installation time drastically, is more energy efficient and has superior performance, compared to conventional insulation systems.

Unique design: The pre-fabricated Trac-Loc panels combine Polyisocyanurate (PIR) closed cell insulation material and Aluminium metallic jacketing, with a double-locking vertical seam construction.

Simplified installation: The rigid panels are fixed to the tank on high-grade metallic cables and interlocked, with no scaffolding and no welding required. This reduces project schedule and increases site safety.

Superior protection: Once installed, the system offers a high rigidity, reduced moisture ingress and minimized CUI. It is maintenance free and provides a clean finished look.

PROJECT FACTS

To meet the mission critical needs of ExxonMobil, our Raychem heat management solution included:

- **Equipment insulated:** Tanks S215 (NL), S217 (NL), T247 (BE), T702 (UK)
- **Quantity of tanks:** 4
- **Size of tanks:** Diameter Ø 40–80 m (130-260 ft), Height 20 m (65 ft)
- **Stored fluid:** Renewable oil/fuel products with critical additives
- **Maintain temperature:** 50-80°C (120-175°F), depending on type of fluid

BENEFITS

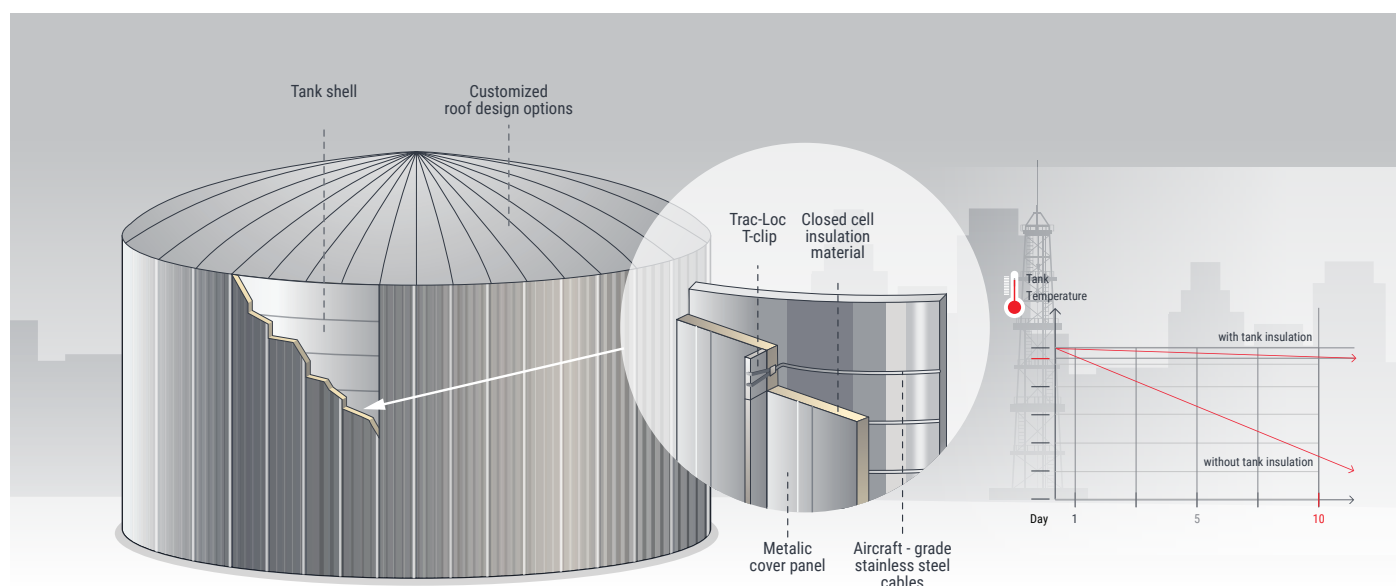
Raychem's Trac-Loc solution not only mitigates the threat of corrosion under insulation (CUI) but also delivers a host of benefits to ExxonMobil:

By utilizing Polyisocyanurate insulation panels and double-seam attachment technique, Raychem Trac-Loc ensures long term reliability and performance of the tank insulation system, significantly reducing maintenance costs associated with CUI-related issues.

Moreover, its installation eliminates the need for scaffolding, resulting in substantial reductions in onsite man-hours and material handling requirements. This optimized approach not only accelerates project timelines but also enhances safety standards by minimizing operational disruptions and reducing risks associated with prolonged onsite activities.

The improved thermal insulation performance results into substantial energy savings for the client, further supporting operational efficiency and reduced carbon footprint.

By delivering comprehensive solutions that address both technical challenges and logistical complexities, Chemelex allows ExxonMobil to achieve unmatched efficiency, reliability, and safety in their tank infrastructure upgrade activities.



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