

Sulfur Tank Energy Retention, Corrosion and Personnel Protection

CUSTOMER: Fertilizer Manufacturer, South Florida, USA

APPLICATION: Sulfur Tank

SURFACE TEMPERATURE: 285°F (140°C)

MATERIAL: Mascoat Industrial-DTI

THICKNESS: 80-100 mils (2.0-2.5 mm)

At many sulfur facilities, tank roofs usually go without insulation for a few reasons.

First, personnel cannot walk across insulation and jacketing without damaging it. If they were to install it, the facility would also have to install a catwalk to prevent that damage. Many times, that extra fabrication is seen as an unnecessary cost issue that is not easily offset by any savings seen by retaining energy.

Second, humidity and rain can be a major hinderance for conventional forms of insulation because of corrosion risks and decreased insulation performance. That risk of corrosion carries with it the risk of prematurely aging the structure, requiring ongoing maintenance to ensure the roof stays intact.

This facility has installed Mascoat Industrial-DTI on multiple Sulfur Tank Roofs over the years because the coating does not have the pitfalls that conventional forms of insulation have in these situations.



MASCOAT BENEFITS

- Mascoat Industrial-DTI can be installed easily and with a minimal crew
- The coating can provide personnel protection so that workers do not burn themselves when accessing the roof
- No need for catwalks or other added construction costs to ensure personnel access.
- Retains energy without the fear of CUI, reducing ongoing maintenance concerns
- Coating's insulating and protective abilities will not diminish over time

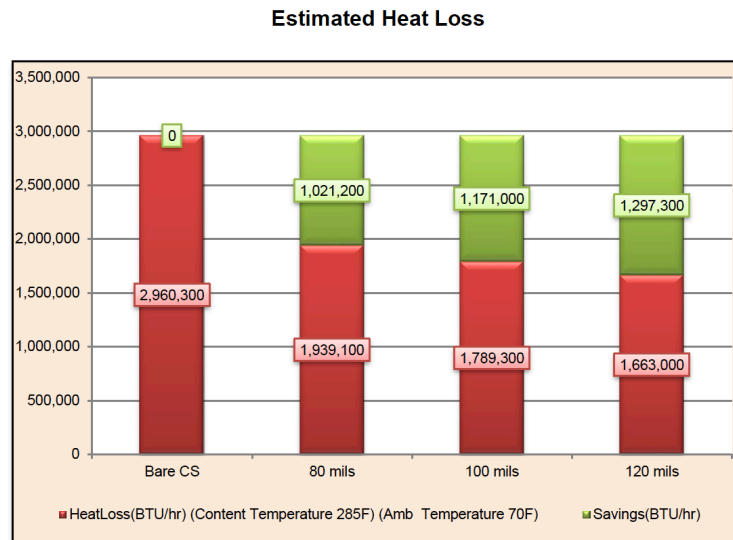
SYSTEM USED

| Surface Preparation | Primer Coat | Final Coat |
|---------------------|---------------|------------------------|
| SSPC SP 10 | Epoxy Novolac | Mascoat Industrial-DTI |
| 50 microns | 5-10 mils | 2.0–2.5 mm |

After work was completed, client reported that they were extremely satisfied with the ease and speed of application, personnel would be adequately protected from contact burns, and that they were looking forward to not having to perform routine corrosion maintenance on the tank.

THERMAL ESTIMATIONS

Based on data supplied by the client, the tank's past and future scenarios are estimated as follows:



Thermal estimations performed by Mascoat predicted that the tank would be saving approximately 40% of energy with just 2.5 mm of Mascoat Industrial-DTI without the risk of CUI, personnel injuries from contact burns, or added maintenance costs.