

Huntsman Chemical Co., Port Arthur, Texas

Prevention of Corrosion Under Insulation (CUI)
and prevention of corrosion from
atmospheric exposure

Case study



Facility Type

Chemical Plant

Owner

Huntsman Chemical

Location

Port Arthur, TX, USA

Project Date

2006, 2007, 2008

Contractors

Brock, A&L Industrial Service, Shaw

Substrate

Carbon Steel Stainless Steel

Surface Prep

SP-SSPC 2

SP-SSPC-10

Coatings

PPG HI-TEMP® 1027

PPG HI-TEMP 1000VS

Project Size

2006 - 12,000 Gallons

2007 - 400 Gallons

2008 - 450 Gallons

The Customer

The Huntsman Chemical plant located in Port Arthur, Texas has a production capacity of 1.4 billion pounds of ethylene annually. The LOU light olefins unit that produces the ethylene also has the capacity to produce 800 million pounds of propylene, 308,000 tons of cyclohexane and 209,000 tons of benzene each year. These chemicals provide feed stock for the production of plastics for consumer goods, bottles and packaging.

The Description

PPG HI-TEMP Coatings provided Huntsman with one versatile product, PPG HI-TEMP 1027, to protect insulated stainless steel and carbon steel piping and equipment from corrosion and to protect un-insulated piping and equipment that would be exposed to atmospheric conditions. Specific projects included their Alkylation unit, which was coated in 2006, their Hydrotreater in 2007, and their Delayed Coker and associated piping in 2008. Two coats of PPG HI-TEMP 1027 at 5-6 mils each were applied to protect insulated carbon steel from corrosion under insulation (CUI) and to protect insulated austenitic stainless steel from chloride induced external stress corrosion cracking. For metal exposed to atmospheric conditions, PPG HI-TEMP 1027 was applied at 5-6 mils DFT and top-coated with one or two coats of 1000VS at 1.5-2.0 mils each.

Due to the superior performance, ease of application, surface tolerance and versatility of PPG HI-TEMP 1027, Huntsman continues to use PPG HI-TEMP 1027 and PPG HI-TEMP topcoats to meet their high heat needs.

Visit ppgpmc.com or contact:

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