

# Chevron Phillips, Baytown, Texas

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



## Case study

### Facility Type

Chemical Plant

### Owner

Chevron Phillips

### Location

Baytown, TX, USA

### Project Date

2009, 2010

### Contractors

Mobley Industrial Services

### Substrate

Carbon Steel, Stainless Steel

### Surface Prep

SP-SSPC-2  
SP-SSPC-3  
SP-SSPC-6

### Coatings

PPG HI-TEMP® 1027  
PPG HI-TEMP 1000VS

### Project Size

PPG HI-TEMP - 5000 Gallons, 300,000 sq.ft.  
PPG HI-TEMP 1000VS - 500 Gallons, 125,000 sq.ft.

## The Customer

The Cedar Bayou Plant in Baytown, Texas is the largest of 34 manufacturing facilities owned by Chevron Phillips. Products manufactured at this facility include natural gas liquids, refinery feedstock and ethylene and propylene made from light hydro-carbons. Ethylene products are upgraded at this facility into alpha olefins and polyethylene resins.

## The Description

Chevron Phillips chose PPG HI-TEMP 1027 to protect their piping and process equipment from corrosion. The process equipment included a 1592 Ethylene unit, heat exchangers, fired-feed heaters and cracking units. Hi-Temp Coatings' PPG HI-TEMP 1027 provided a one product solution to their various needs. PPG HI-TEMP 1027 was applied to provide protection from corrosion under insulation of carbon steel, as well as to provide corrosion protection for equipment exposed to atmospheric conditions. PPG HI-TEMP 1027 was also used to prevent chloride induced external stress corrosion cracking of insulated austenitic stainless steel.

For all insulated equipment two or three coats of PPG HI-TEMP 1027 were applied at 5-6 mils each. For equipment exposed to atmospheric conditions, one coat of PPG HI-TEMP 1027 was over-coated with PPG HI-TEMP 1000VS to provide both corrosion protection and the desired appearance. PPG HI-TEMP 1027 was also hot applied at temperatures as high as 500°F [260°C] to operating equipment without shutdown, saving Chevron Phillips time and money.

Visit [ppgpmc.com](http://ppgpmc.com) or contact:

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