

List of Oil and Gas Applications

1. Shell, Houston, Texas - TC Ceramic has been used on hot steam pipe lines and hot processing storage systems. Operating temperatures 125C to 175C. Various thickness from 1.0mm to 3.0mm
2. Shell, Puerto Rico - TC Ceramic has been used on hot steam pipe lines and hot processing storage systems. Operating temperatures 125C to 175C. Various thickness from 1.0mm to 3.0mm
3. Shell, Martinez, California - TC Ceramic has been used on the roof of hot tanks which before were not insulated. Coated in Black. Operating temperature 70C. Thickness 1.0mm
4. Caltex, Indonesia - TC Ceramic was used on a above ground crude oil pipeline. Coated in Black. The pipeline was approximately 8 kilometers long. The problem was in the monsoon season when it rained the pipeline cooled too much and made it difficult to pump the crude oil. After coating there have been no problems pumping crude oil in the raining season. Operating temperature 65C to 75C. Thickness 1.0mm. Amount of TC Ceramic used, approximately 4100 Gallons/15,500 liters/820 buckets.
5. Lynndell Citgo Refinery, Texas - TC Ceramic was used on hot system storage tanks and related hot piping systems. Operating temperatures range from 65C to 180C. Thicknesses range from 1.0mm to 3.0mm depending upon the operating temperatures. Every year they use approximately 1000 plus gallons/3785 liters of TC Ceramic as they slowly replace older conventional insulation which has failed. After Hurricane Katrina and Wilma, they experienced considerable damage to conventional insulation on tanks and pipes, but no damage on any systems coated with TC Ceramic. (This year they may use over 2000 gallons of TC Ceramic. We have already shipped them 1000 gallons.)
6. BP - North Sea, Scotland - TC Ceramic is being used on hot systems on the drilling platforms in the North Sea. Operating temperatures 65C to 180C. Thickness 1.0mm to 3.0mm.
7. Valero, Louisiana - TC Ceramic is used on cool storage tanks to block solar and ambient temperatures. Thickness 0.7mm. Amount of product used - approximately 1,200 gallons/4542 liters. Comparative data is being gathered on the tank, but is not available yet.
8. Placid Refinery, Louisiana - TC Ceramic was used to replace approximately 7cm of conventional insulation on a hot processing system tower approximately 21 meters high. The conventional insulation could not keep the tower hot enough when it rained, which required the processing to be shut down whenever the system dropped below 106C at the base of the tower. After coating with 2.0mm of TC Ceramic, the system has never been shut down due to rain or cold ambient temperatures.

9. Conoco-Philips, Scotland - TC Ceramic was used to insulate hot processing tower, approximately 15 meters high. Operating temperature 125C. Thickness 2.5mm.
10. Over 40 industrial plants and ethanol plants have used TC Ceramic to insulate tanks, hot pipes, cold systems and dust collection systems. (TC Ceramic is extremely effective insulating dust collection systems.)

In most all of the applications listed above, the performance of the TC Ceramic was not based upon surface temperature, but upon personnel protection, corrosion protection and the underlying operating temperatures and products continuing to perform within operating specifications and requirements. In all cases, the TC Ceramic was were equal to or better than the operating specifications and performance requirements. This is further proven by the fact that virtually all of the above companies continue to purchase TC Ceramic for additional applications.