



BREAKTHROUGH PRODUCTS BASED ON BETTER TECHNOLOGY.

Highlights...

Stopped Vaporization of methanol in tanks

Excellent Solution to effective insulation in high humidity environments!

Customer:

Petrochemical Facility

**Distributor/
Applicator:**

NanoFan U.A.E.
www.nansulate.ae

NANSULATE® INSULATION & CORROSION CONTROL

CASE STUDY

**Nansulate® High Heat
Nansulate® Top Coat
NanoPrime™**

ISSUE:

A large petrochemical facility needed to **prevent corrosion of carbon steel tanks and stop vaporization of methanol by insulating tanks efficiently.** Methanol (CH₃OH) evaporates at 64.7°C. When the Methanol reaches the storage tanks the temperature of the liquid is 15°C and the goal is that it should not exceed 33°C. The chemical plant is located in the Middle East where humidity between 75% to 90% makes traditional insulation materials impractical to use due to their fast absorption of moisture.

SOLUTION:

A layered application of NanoPrime™ at one coat, followed by Nansulate® High Heat at 2 coats, and Nansulate® Top Coat (tinted blue) in one coat was spray applied to the large methanol tanks

Nansulate® insulation technology was chosen for the the project for the following reasons:

- 1- An insulating material with extremely low thermal conductivity was desired, for maximum energy savings.
- 2- An insulating material with strong resistance to radiant heat from the sun was desired.
- 3- They needed an insulation that would maintain its insulating properties in the high humidity environment
- 4- They needed corrosion resistance, and an insulation that would not cause CUI (corrosion under insulation).

- See project photos on page 2 -



Methanol tanks suffered from corrosion and vaporization of liquid due to hot climate.



Nansulate® stopped vaporization of methanol with effective insulation properties, and offered corrosion protection and resistance to moisture penetration

Industrial Nanotech, Inc.

801 Laurel Oak Dr. Suite 702, Naples, FL 34108
Phone: 1- 239-254-0346 Toll Free: 800-767-3998
Fax: 1-239-254-1381
Email: contact@nansulate.com
www.industrial-nanotech.com
www.nansulate.com



BREAKTHROUGH PRODUCTS BASED ON BETTER TECHNOLOGY.

NANSULATE® INSULATION & CORROSION CONTROL

CASE STUDY - p. 2

Customer:
Petrochemical Facility

**Distributor/
Applicator:**

NanoFan U.A.E.
www.nansulate.ae



Large tanks holding methanol before application of Nansulate®



Nansulate® is easily applied with airless or H.V.L.P. (high volume low pressure) conventional paint spray equipment



Nansulate® offered the best insulation technology available for the high humidity climate of the Middle East.



Nansulate® Top Coat, which is a white, semi-gloss was tinted blue per customer's needs and used as the final overcoat



The completed, Nansulate® coated tanks provided the protection that the customer was looking for and stopped the vaporization issue while offering protection from corrosion and moisture.

Industrial Nanotech, Inc.
801 Laurel Oak Dr. Suite 702, Naples, FL 34108
Phone: 1- 239-254-0346 Toll Free: 800-767-3998
Fax: 1-239-254-1381
Email: contact@nansulate.com
www.industrial-nanotech.com
www.nansulate.com