



SUPERIOR PRODUCTS INTERNATIONAL II, INC.

TANK INSULATION

Tanks holding product such as finished gasoline or cool temp, requiring protection against solar heat against the tank exterior. SUPER THERM® is the product that will prevent this heating process over the exterior surface. If the tank is a super cold product, then we recommend the HPC™ (is used both ways to prevent heat load and transfer), to be a backup product for extreme jobs, and then overcoated with SUPER THERM® to do the job. These processes eliminate jacketing which is very expensive, and provides real time "insulation" over the surface of the tanks.

Insulation boards and blankets that are used to insulate industrial tanks.

I have seen this form of insulation used in the petrochemical plants and oil fields. It does not work well for more than six months in hot, humid environments. Taking an infrared measuring gun, you can shoot the tank jacket holding the blanket and find how far the blanket has dropped down on the bottom of the tank side. The moisture load is tremendous, and eliminates the heat transfer effect. Also, the problem with checking the blanket for effectiveness is simply touching the exterior side of the blanket. If it is not hot, it is "insulating". This is totally inaccurate, and should never be considered insulation. The blanket is a certain thickness. It is loading heat from the surface of the tank and not "actually" holding the heat inside the tank, but only slowing the heat transfer out. There is a simple test that you can perform. Touch the top of the blanket and record the temperature, then remove the blanket and hold a piece of paper at the same distance away from the tank surface as the top of the blanket was measured. Then shoot the paper with the infrared gun. The paper surface would be cooler than the blanket exterior surface. This only shows that if you hold your hand or a piece of paper the same distance away from the surface of the tank that the blanket thickness is away from the surface, the heat is dissipating quickly in this distance and the full load of heat cannot reach the surface to be recorded. We think this is insulation and stoppage of heat loss, when in actuality the heat was lost before it ever made it to the surface. Blankets are good for the purpose of stopping employees from becoming burned, but as true insulation, it is not very good.

Tanks holding hot crude, oils or chemicals. In this case, we do not use jackets and blankets that are subject to weather and the elements. Apply HPC™ (Hot Pipe Coating) over the exterior of the initial tank skin to a thickness determined by the surface temperature and desired exterior temp. HPC™ utilizes seven different ceramic compounds designed specifically to "catch and hold" heat that is trying to transfer. The SUPER THERM® cannot perform this task because it is repelling heat, and that action cannot be effective in this kind of job. The seven-ceramic blend will not load the heat and, therefore, holds the heat at the surface level. This improves the heat load stability of the tank interior to make it operate more efficiently, requiring less energy to maintain the heat load in the tank, and prevents the hardening or skinning of product along the sides of the tank interior. The HPC™ should be overcoated with SUPER THERM® for improved weathering and durability. If the environment is one of a constant chemical vapor, I would recommend overcoating the SUPER THERM® with our ENAMO GRIP to prevent deterioration and staining of the SUPER THERM®. If the environment does not contain a heavy chemical vapor area, ENAMO GRIP may not be needed. Both HPC™ and SUPER THERM® are water based, and ENAMO GRIP is a two-part polyurethane enamel.