

Case Reference

Nano Insulation Experiences



□ **INDUSTRY: Biomass manufactory - Ash Hopper tank (paint / spray)**



Before using PSC

- Heat lost from Ash Hopper tank / Energy lost.
- Environment around the machines was very hot, temperature was higher than 120 C.
- Need to do shut down more than 10 days for maintenance in order to repair part of materials corrosion and change traditional insulation every 2- 3 years, money lost.
- Have a lot of wastes to scrap, lost time and lost money



After using PSC (2 mm)

- Environment around the machines become much cooler, average 43 C.
- Energy saving 26%
- No maintenance required, no need to change the insulation.
- No waste for scrap, cost saving.
- ROI 1 day = PSC application cost – maintenance cost and money lost due to production lost



□ **INDUSTRY: Tire manufactory – hot / cool water pipe system (paint / spray)**



Before using PSC

- Traditional insulation fast degradation cause from process high temperature 180 C, have to change insulation frequently and repair the part of material corrosion 1-2 times per year.
- Heat lost from hot water pipes / Energy lost !!
- Environment around the machines was hot, 60 C.
- Need to do shut down more than 10 days for maintenance in order to repair part of materials corrosion and change traditional insulation, money lost.
- Have a lot of wastes to scrap, lost time, lost money and non Eco-friendly.



After using PSC (3.5 mm)

- Environment around the machines become much cooler, average 45 C.
- Energy saving 25%
- No maintenance required, no need to change the insulation.
- Able to adjust the color easily (ex. blue color in photo above)
- No waste for scrap, cost saving.
- ROI 6 months



□ **INDUSTRY: Tire manufactory - Curing Mold (paint / spray)**



Before using PSC

- Traditional insulation fast degradation cause from process high temperature 130 C and moveable of curing molds, have to change insulation frequently and repair the part of material corrosion 2-3 times per year.
- The insulation could not cover whole parts of curing mold that cause of heat lost / Energy lost !!
- Environment around the machines was hot, 80 C, employees / union complained for bad environment and poor condition of working area (lost image of company)
- Need to do shut down for changing traditional insulation, money lost.
- Have a lot of wastes to scrap, lost time, lost money and non Eco-friendly.



After using PSC (4.5 mm)

- PSC could cover whole parts of curing molds, Energy Saving.
- Curing mold surface temperature reduced from 131.5 C
 - 43.6 C.
- Environment around the machines become much cooler, average 42 C.
- Energy saving 27%
- No maintenance required, no need to change the insulation.
- No waste for scrap, cost saving.
- ROI 3 months



INDUSTRY: Petrochemical manufactory - piping system (paint / spray)



Before using PSC

- Traditional insulation fast degradation, have to change insulation frequently.
- The insulation could not cover whole parts of piping and system that cause of heat lost / a lot of Energy lost !!
- Environment around the machines was hot, 60 C.
- Need to do shut down for changing traditional insulation, money lost.
- Have a lot of wastes to scrap, lost time, lost money and non Eco-friendly.



After using PSC (3 mm)

- PSC could cover whole parts of curing molds, Energy Saving
- Temperature reduced to 43 C.
- Environment around the machines become much cooler, average 42 C.
- Energy saving 26%
- No maintenance required, no need to change the insulation.
- No waste for scrap, cost saving.
- ROI 6 months.



BUILDING: Container (paint / spray)



Before using PSC

- Metal container with normal paint coating, there was corrosion and rust due to hot weather and humidity.
- Insulation inside container detached due to humidity.
- Temperature inside container was very hot, 62 C.
- Have to do repair, re-paint and change insulation, lost money and non Eco-friendly.



After using PSC (0.38 mm)

- PSC can make the color easily as requirement.
- Temperature reduced to be 39 - 42 C (similar as ambient temperature).
- Save electricity cost for air conditioning.
- Long life of usage and no need to change the insulation inside container.
- Cost saving
- ROI 8 months



BUILDING: Building, House, Roof (paint / spray)



Before using PSC

- Temperature inside house was very hot, higher than 43 C.
- Need air conditioning, lost money for electricity.

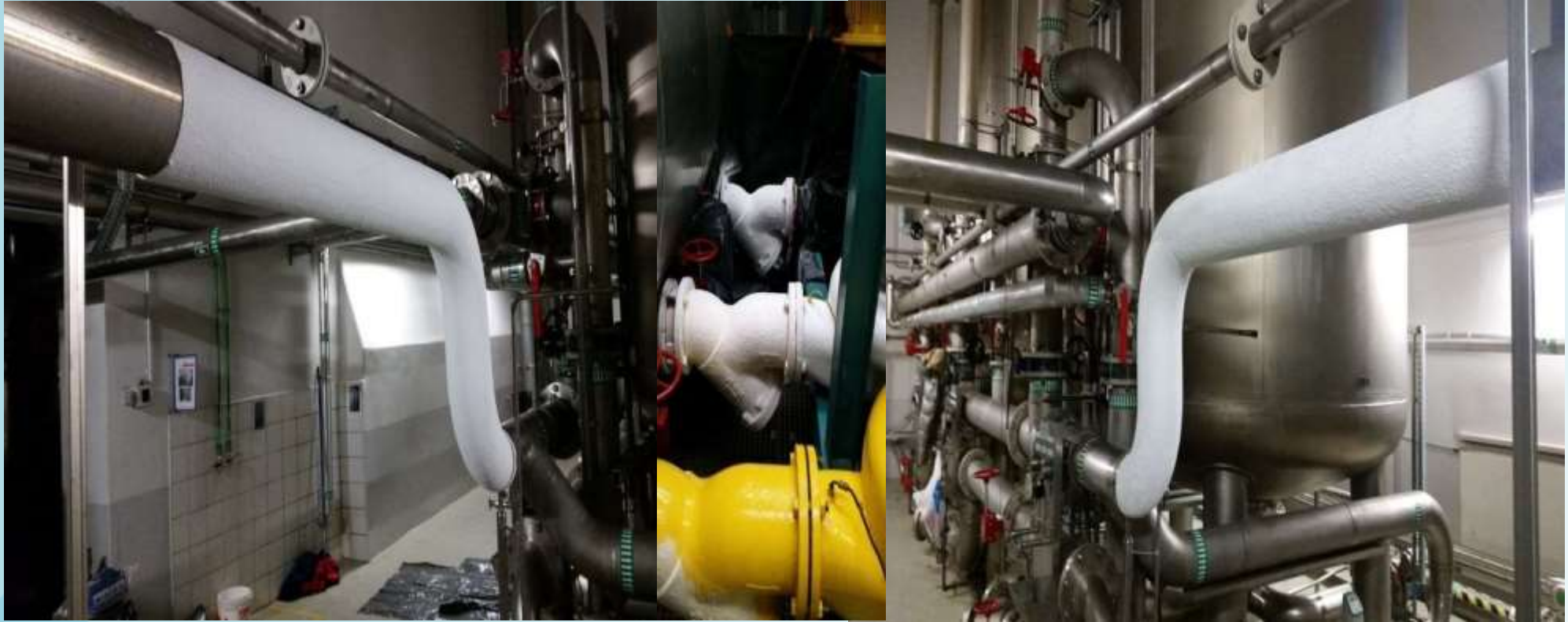


After using PSC

- PSC can make the color easily as requirement.
- Temperature inside house reduced to be 29 – 32 C.
- Save a lot of electricity cost for air conditioning.
- Long life of usage, save money.



➤ Project for condensation problems elimination



Insulation Coating in Polystyrene plant



Bulk Container Insulation Coating

