

INTERNATIONAL SOFT DRINK MANUFACTURER



CONFIDENTIAL

- Markets: Industry & Manufacturing
- Country: Russia
- Courtesy of: Superior Products Vostok



Industry & Manufacturing Market

PROJECT DESCRIPTION

One of the largest fruit juice production plants in Central Russia works around-the-clock including weekends and holidays. The plant has its own boiler that generates thermal energy for space heating and for providing different technological processes with hot water and steam. The major part of pipelines is insulated with mineral wool, covered with galvanized iron, but there are open areas with a complex geometric shape of the surface which cannot to be insulated with standard insulation: valves, gate valves, filters, pressure regulators, flanges, etc.

The open sections of pipelines needed to be insulated to reduce heat loss values, prevent corrosion under insulation, increase energy efficiency and ensure personnel safety from burns. To achieve this goal it was necessary to reduce the temperature on the surface to 55°C. The temperature on the not insulated surfaces ranges from 159°C to 170°C.

Based on the thermomechanical calculations amount of wasted energy is 555.87 Gcal per year.

COATING SOLUTION

To achieve the rated level of heat losses and temperature reduction at the surface to 55°C, taking into account the complex geometry of the surface, it was decided to apply HOT SURFACE COATING with a layer thickness of 9mm.

(HOT SURFACE COATING is certificated to be used in food production.)

RESULTS

Objects were fully insulated according to the agreed 9mm.

- The surface temperature was reduced to a safe level for personnel
- Heat losses from the open areas were decreased by 72%
- Energy savings in these areas were estimated to be 400.23 Gcal per year
- The surface is safely protected from moisture attack and therefore stops corrosion

PRODUCTS WE USED

Hot Surface Coating™