

Sugar Syrup Juice Heater

Client & Location: The Royal Swaziland Sugar Corporation – Simunye Mill

Date of Application: July 2019

Applicator: Alubus Engineering & TAC Solve PTY Ltd

Coating: Mascoat Industrial DTI, Light Grey

Application: Syrup Heaters, Steam Pipe, Syrup Pipe & Condensate Pipe
Reason for Application: Energy Retention and Personnel Protection
Thickness Applied: 100-140 mils (2,5 – 3,5mm).

During Raw Sugar Production, Syrup is created. When there is too much Pith (Sugar Cane Fibre) in the syrup it needs to be clarified at around 85 Deg C. The Syrup Heater is heated with V1 Steam at 110 Deg C. Stainless Steel Pipework carries the syrup at 85 Deg C to the Clarifier.

Traditionally, Sugar Mills have used Batt Insulation on the wall of the heater with none being used on the 2 lids. The lids can account from 10 – 15 % of the heater's area. The lids have never been insulated due to their irregular shapes. The heaters are opened every 14 days for cleaning. The cleaning process uses lots of water which compromises traditional Batt Insulation.

The client needed a solution that would resist the continuous cleaning process and provide the required thermal insulating properties. Applying Mascoat DTI totally prevents CUI (Corrosion Under Insulation), provides the required Energy Retention and Personal Protection. The client contacted our preferred applicator Alubus Engineering & TAC Solve to get this job done. They highly specialize in the application of Mascoat and very familiar with the Sugar Industry. They applied 2,5-3,5mm of Mascoat Industrial-DTI and brought the temperature down from 110 deg C to 67 deg C.

