

# PROJECT INFORMATION

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<b>Client</b>	<i>Sappi Saiccor Umkomaas</i>
<b>Project</b>	<i>Effluent Canal</i>
<b>Date Completed</b>	<i>1983</i>
<b>Liner Specification</b>	<i>5,0mm PP</i>
<b>Size</b>	<i>19 000m<sup>2</sup></i>

## Application Details

Remedial lining to an existing 3,5km long concrete canal carrying effluent from the Saicco Pulp Mill to a pump station near the mouth of the Umkomaas River.

The concrete canal was badly corroded due to the effluent having a pH that varied between 2,2 & 2,7 and a temperature of 58°C. Remedial work was essential to prevent structural failure and contamination of the river.

## ENGINEERED LININGS

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FOUNDED 1984

# Sappi Saiccor Canal



A major stumbling block for relining was the fact that the effluent stream could not be shut off for any period of time due to 24 hour production at the pulp mill. Therefore the relining had to be executed whilst a constant flow of effluent passed down the canal.

Due to the chemistry of the effluent and its elevated temperature, 5,0mm fPP was chosen as the lining to protect the concrete. The liner was supplied in 10,0m x 6,0m sections and each section was shaped, positioned and mechanically fastened to the walls of the canal. A specially constructed gantry was utilized to position each section and maintain it in position until connecting of the segments was completed.



The liner segments were joined with specially designed 316 stainless steel coupling frames. A diver, in a water-cooled wet suit, fastened the panels.

The relining took place without any disruption to the production at the paper mill.

OTHER  
CANALS

- Sappi Saiccor Effluent Canal - 5,0mm PP - 1 000m<sup>2</sup>
- Amplats Marikana mine run off canal - 2,0mm HDPE - 3 900m<sup>2</sup>