

Chlorine dioxide storage tanks

Mönsterås Bruk paper mill, Sweden

When Trelleborgplast delivered white liquor storage tanks to the new pulp and paper mill of Mönsterås Bruk in South Sweden, they transported them in one piece to limit the amount of laminating on site and to ensure a quick installation.

This was just one aspect of Mönsterås Bruk's concern for maximum reliability of all equipment at this plant.

AGGRESSIVE ENVIRONMENT

Trelleborgplast had the requisite manufacturing space and handling facilities plus the necessary experience of large tank construction to manufacture these tank under carefully controlled factory conditions to the highest possible quality within a specified delivery period. Delivery of the five tanks was only the first part of a total delivery by Trelleborgplast to include scrubbers, a chimney and a few storage tanks for chemicals.

Of equal concern to Mönsterås Bruk was the construction material for the tanks, scrubbers and associated piping. The environments to be withstood by the tanks include: Chlorine dioxide, sodium chlorate, hydrochloric acid and sodium hydroxide at various concentrations and temperatures.

They discovered that their mill at Varo had successfully used Atlac over five years. A reinforced plastics consultant to the Södra



SUMMARY

> Storage tank for Chlorine Dioxide

OPERATING CONDITIONS

> Chloride dioxide

ATLAC SOLUTION

> Atlac 4010

IN SERVICE

> 01-01-1979

BENEFITS

> ease of fabrication

protection against corrosion

REMARKS

> decommissioned in 1993 due to process changes

Skogsagarna AB Group, of which they are a part, was able to make preaccelerated Atlac 4010A resin for the project because of the ease of fabrication.

SÖDRA CELL MÖNSTERÅS

Södra Cell is one of the world's leading manufacturers of market pulp. Besides producing high-class paper pulp, Södra Cell is working conscientiously to increase customers' added value through their relationship with Södra. Through products, service and competence, Södra Cell aims to be the best supplier within the main areas: fine paper magazine paper tissue speciality papers and boards.

Paper pulp production takes place at three Swedish and two Norwegian pulp mills with 1,800 employees. The total production volumes exceeded 2 million tonnes in 2004.

Long fibre softwood pulp, used mainly as a reinforcement pulp, accounts for 80 per cent of the company's output. The remaining 20 per cent comprises short fibre hardwood pulp (including eucalyptus), which is used mainly in paper requiring good printability. All are bleached using

either the ECF or TCF process.

About DSM

DSM Composite Resins is the largest producer of unsaturated polyester resins in Europe. With production facilities in many different European countries, DSM Composite Resins offers a wide range of resins, matching every conceivable processing and end-use requirement, in the most diverse applications. Local Sales offices and Technical Service laboratories enable close cooperation and partnerships between customers and DSM Composite Resins. Central Research & Development is fully equipped to develop and test new resins and to tune systems for optimal results in specific processing techniques. The development, service and manufacture of composite resins are certified according to ISO 9001.

About Atlac

For several decades Atlac resins have proven themselves highly suitable in applications where chemical and thermal resistance in combination with high mechanical properties are required. Atlac resins have outstanding corrosion resistance to a wide range of organic and inorganic acids, alkalines, solvents and bleaches. They are widely used for fibre-reinforced applications such as storage tanks, vessels, pipes and ducts. The Atlac resins can be processed by means of a wide range of fabrication techniques, including filament winding, hand layup, spray-up, and polymer concrete.

Contact

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Technical details	
Application	Storage tank
Medium	chlorine dioxide
Conditions	various concentrations and temperatures
Construction details	CR GRP liner
Resin	Atlac 4010A for both liner and reinforced wall
Commissioning	01-01-1979
Inspected	
Manufacturer	Trelleborgplast
End user	Mönsterås Bruk
Location	South Sweden
Remarks	Plant stopped in 1993 with the use of clorines and changed to ozone bleaching.