Atlac in Austria

Donau Chemie - Brückl

Customer Case

Donau Chemie manufactures high-quality electrolysis products by the membrane process. Their innovative, proficient approach is setting new standards in the development of advanced environmental technologies, for example in the use of new corrosion resistant equipment made of Atlac vinyl ester resins.

AGGRESSIVE CONDITIONS

Donau Chemie in Brückl manufactures high-quality electrolysis products by the membrane process. A broad product range includes aggressive media as caustic soda, chlorine sodium hydroxide, hydrochloric acid, iron(III) chloride and sodium hypochlorite. In 1999 the membrane-electrolysis plant was modernised and is now the world's most modern and environmentally friendly production process for chlorine and caustic soda solution. The advantages that Atlac resin brings were crucial to the success of this project.

THE ATLAC SOLUTION

Glassfiber reinforced Atlac has proven to be the material of choice for process equipment because of its corrosion resistance, strength and low weight. Atlac has been used for pipe systems carrying chlorine gas, the caustic soda (PP lined) and the chlorinated brine after the electrolysis process. Also Atlac 430 was used for

SUMMARY

> Storage tanks for sodium hypochlorite, caustic soda, brine etc.
Process lines in the electrolysis process

OPERATING CONDITIONS

> NaOH 32%, 80°C
Cl2 gas 80°C
NaCl 300 gr/l

ATLAC SOLUTION

> Atlac 430 bisphenol-A vinylester (with and without PP liner)
Atlac 590 epoxy novolac vinylester

IN SERVICE

> Upgrade in 1999 (conversion took place in 1992)

BENEFITS

> Corrosion free
high temperature resistance
availability

REMARKS

>

Customer Case

piping to feed brine and caustic soda to the electrolysis cells.

Technical details	
Application	various applications in storage and process conditions
Medium	Caustic soda, chlorinated brine, Chlorine gas
Conditions	temperatures exceeding 80°
Construction details	Full GRP pipes for brine and chlorine gas, PP lined for caustic soda
Resin	Atlac 430 bisphenol A vinylester resin
Commissioning	plant omtimisation 1999; first tanks installed in 1992
Inspected	1999-2004
Manufacturer	Selip, Itlay
End user	Donau Chemie, Brückl, Austria
Location	Brückl, northeast of Klagenfurt
Remarks	Plant equipment optimisation is performed by Donau Chemie themselves. This includes also construction of GRP vinylester components such as tie-ins and flange connections.

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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