INTERPLASTIC CASE history

Chlorine knock-out pot and absorber vessels, chlorine FRP piping.

Interplastic's CoREZYN® Vinyl Ester Resins Handle the Range of Corrosion Applications in Chlor-Alkali

Epoxy-Based Vinyl Ester Resins

Problem:

NCP Chlorchem Pty (Ltd), located in Kempton Park near Johannesburg, is South Africa's second largest manufacturer of chlor alkali related products. Using electricity, NCP converts salt into a variety of chlorinated compounds used in the water treatment, industrial, paper and chemical industries.

Consequently, their plant is full of hot corrosive materials, such as hydrochloric acid (HCl), caustic soda (NaOH), sodium hypochlorite (NaOCl) and chlorine (Cl_2). These materials pose serious corrosion challenges, which can literally bring an operation like this to a standstill. It requires professional attention and a serious solution.

Solution:

For over 36 years, Fibre-Wound SA (Pty) Ltd, based in Durban South Africa have partnered with NCP for design, manufacture, installation, and on-going maintenance and repair of composite corrosion resistant equipment and piping.

Fibre-Wound has chosen to use Interplastic's CoREZYN vinyl ester resins for the management of NCP's

corrosion resistant needs. Interplastic manufactures a comprehensive line of epoxy-based vinyl ester resins, appropriate for any corrosive application in the chlor-alkali process. From the fabrication of tanks, pressure vessels, scrubbers, filters, piping, ducting and exhaust stacks, to the re-lining of corroded steel and rubber-lined vessels, Fibre-Wound uses Interplastic's CoREZYN® vinyl esters extensively. Following are some of the resins used in these corrosive chemical services which typically reach 200°F (95°C):

CoREZYN CORVE 8300:
HCL (hydrochloric acid), solutions up to 33% m/m and $FeCl_3$ (ferric chloride), up to 44% m/m.

NaOCl (sodium hypochlorite) solutions containing more than 15% m/v of available chlorine.

NaOH (caustic sodium hydroxide), solutions up to 47% concentration.

Cl_2 service (chlorine gas)

CoREZYN CORVE 8730:
Chlorinated paraffin up to 55% m/m chlorine.

Cl_2 service (chlorine gas)

CoREZYN CORVE 8440:
Cl_2 service (chlorine gas)

On-Going Benefit:

NCP Chlorchem has never looked back on their decision to go with Fibre-Wound SA and Interplastic's CoREZYN vinyl ester resins. In fact, the on-site Fibre-Wound crew is like part of the NCP family; they are an integral part of the plant's operation and help keep NCP's processes up and running. The combination of Fibre-Wound's expertise and the outstanding performance of Interplastic vinyl ester resins ensures that NCP Chlorchem management sleeps well at night, knowing their corrosion needs are in good hands!

Sodium chloride (brine) storage tank.

Interplastic Corporation is a specialty chemical company with its headquarters in St. Paul, Minnesota. Its Thermoset Resins Division focuses on the production and distribution of unsaturated polyester, vinyl ester resins, gel coats and colorants for the composites and cast polymer industries. The Molding Products Division is a leader in the production of sheet molding composites and other thermoset molding materials. Interplastic's North American Composites division is a national, full-service distributor to these same industries. Interplastic Corporation's Thermoset Resins Division is ISO 9001:2008 and ISO 14001:2004 certified.

For additional information about the fabrication of chemically resistant equipment, or the materials used, please contact:

Hilson Wilmot
Fibre-Wound SA (Pty):
Hilson@fibre-wound.co.za
or
Peter Surmak
Interplastic Corporation:
psurmak@interplastic.com

Emergency gas plant producing sodium hypoclorite as a by-product.

INTERPLASTIC CORPORATION
Thermoset Resins Division

1225 Willow Lake Blvd., St. Paul, MN 55110-5145
800.736.5497 • 651.481.6860 • Fax: 651.481.9836
www.interplastic.com

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Thermoset Resins Division