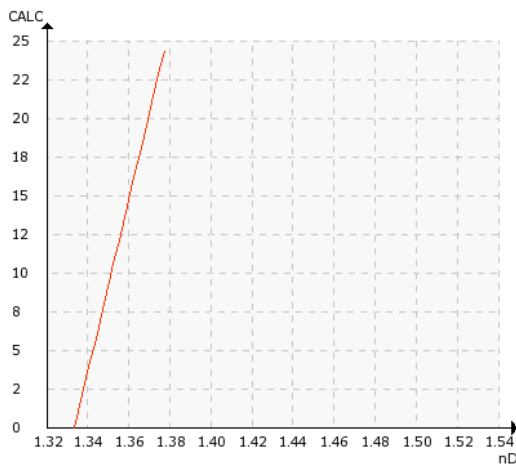


SODIUM CHLORIDE NaCl

Typical end products

Electrical appliance components, automotive and industrial applications, corrosion preventive coatings, filter and filter bags, etc.

Chemical curve: Sodium Chloride, NaCl. per Conc% b.w. at Ref. Temp. of 20°C



Introduction

Polyphenylene sulphide (PPS) resin, a form of engineering plastic, is comprised of about 30% sulfur and about 70% benzene by weight. PPS resin has captured wide attention as a material for automobile and electronic parts due to its outstanding chemical resistance, high-temperature stability, good dimensional stability, inherent flame retardance and good electrical properties.

Application

Polyphenylene sulfide (PPS) resin is made from sodium sulfide and dichlorobenzene in a polar solvent. The process medium is the suspension containing PPS and sodium chloride. The suspension goes through an evaporation process freeing volatile substances. The ionic content interferes with electrical applications, and must be removed by repeated washing. If chloride and sodium from raw materials remain in the resin, they can lead to the corrosion of molds and functional deterioration of metal parts. Moreover, chlorine has a potentially harmful environmental impact if burned. That is why it is of utmost importance to remove NaCl in order to produce chlorine- and sodium-free PPS resin.

The powder is then dried and packaged for further processing and use in various electrical, automotive and other industrial applications. The production is either a batch or a continuous process.


Installation

The K-Patents Process Refractometer PR-23-GP measures the NaCl concentration at the outlet line of the dissolution tank. NaCl is dissolved in the solution and the PPS resin remains undissolved in the mixture. The refractometer can monitor and control the NaCl dissolved solids concentration without influence of the undissolved PPS resin.

Concentration measurement range for this application is 16-25%, temperature 25-30 °C.

The K-Patents refractometers provide precise, accurate and reliable measurements. Continuous measurement assures valuable real-time information for process control, as well as top-quality chlorine- and sodium-free PPS compounds.

Automatic prism wash with steam or high pressure water is recommended. Appropriate equipment with hazardous and intrinsic safety approvals is available when required.

Instrumentation	Description
	<p>K-Patents Process Refractometer PR-23-GP is an industrial refractometer for large pipe sizes and tanks, cookers, crystallizers and kettles. Installation through a flange or clamp connection.</p>
Area classification:	Intrinsic safety and hazardous area approvals available.
Measurement range:	Refractive Index (nD) 1.3700 – 1.6300, corresponding to 0-26 % by weight.