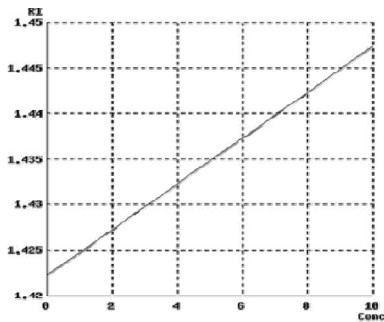


POLYCARBONATE

Typical end products

Bottles, food and drink containers, windows, computer and TV housings, furnishing etc.

Chemical curve: Lexan R.I. per Conc% b.w. at Ref. Temp. of 20°C



The most common type of polycarbonate plastic is made by synthesizing bisphenol A (BPA) and phosgene (carbonyl dichloride, COCl_2). This polycarbonate is a very durable material. Typical end products are to be found in bottles, windows and in the electronics industry. There are around 10 polycarbonate manufacturers in the world.

Application

LEXAN is the tradename used by GE Plastics for their polycarbonate. The basis of the manufacturing process is the reaction of bis-phenol A and phosgene in a methyl chloride solvent. After reaction, the polymer solution is centrifuged and filtered. Finally the polymer solution is concentrated and dried.

Introduction

Polycarbonates are a group of thermoplastics, which are characterized by their toughness, high softening point and clarity.

Installation

The K-Patents PR-23-GP Process Refractometers are used to monitor the concentration of resin in solvent to maintain precise control of the manufacturing process. Typical measurement range is 5-30% polymer in solvent, and the normal process temperature is about 40°C (104°F). Appropriate equipment with hazardous and intrinsic safety approvals are available when required.

Instrumentation



Description

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.

Area classification:

Intrinsic safety and hazardous area approvals available.

Measurement range:

Refractive Index (nD) 1.3200 – 1.5300, corresponding to 0-100 % by weight.

CHEMICALS AND ALLIED	
APPLICATION NOTE	4.03.04
POLYCARBONATE SYNTHESIS PROCESS	