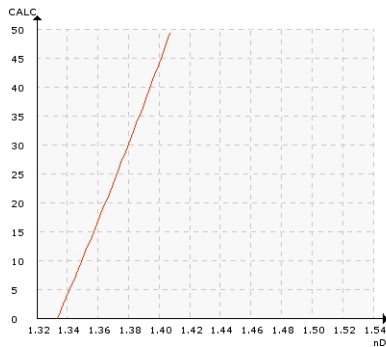


SIZING LIQUID, PVA, CMC, STARCH

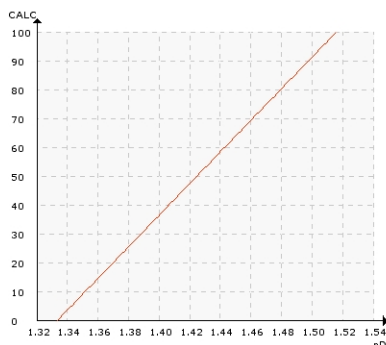
Typical end products

Bond, ledger, writing and other types of paper

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



CMC R.I. per Conc% by weight at Ref. Temp. of 20°C



Introduction

The size liquid is commonly added to the paper with a size press or a blade coater. From the storage tank, the sizing liquid is pumped into the size press circulation system.

There is a constant flow from the machine tank to the size press. At the size press, the sizing liquid is sprayed onto the paper. The paper absorbs a portion of the sizing liquid with the surplus being re-circulated through a screen to the machine tank.

At the size press, the paper absorbs a larger quantity of water than the sizing material. Therefore, it is extremely important to measure the size's concentration levels precisely in the size press circulation system. Water must be added into the circulation to maintain the dilution levels.


Application

The K-Patents Process Refractometer PR-23-GP is used to control the sizing liquid concentration in order to optimize the paper sizing process. The K-Patents refractometer is used to stabilize sizing conditions and to keep paper quality constant.

PULP AND PAPER	
APPLICATION NOTE	3.03.02
PAPER SIZING: SIZE PRESS	

Installation

Typical measurement range is 0-15% starch. Usually the bottom layer concentration is lower than the top layer concentration. A prism wash using high pressure warm water is recommended.

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>
<p>Automatic prism wash:</p>	<p>Prism wash with steam: The components of a steam wash system are a sensor with integral steam nozzle mounted at the sensor head, a shut-off valve for steam line and an indicating transmitter equipped with relays to drive the wash valves.</p>
<p>Measurement range:</p>	<p>Refractive Index (nD) 1.3200 – 1.5300, corresponding to 0-100 % by weight.</p>