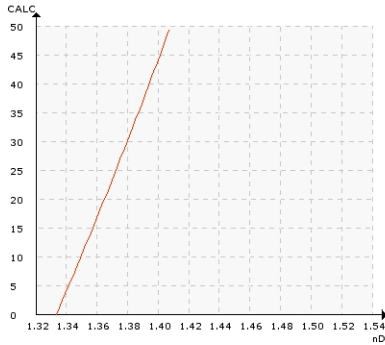


## SIZING LIQUID, PVA, CMC, STARCH

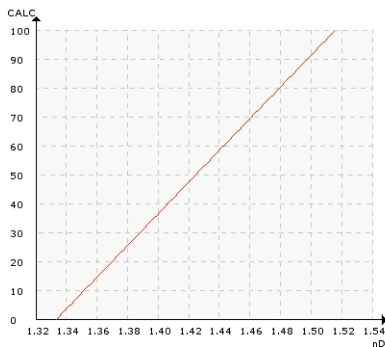
### Typical end products

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 liquid is usually cooked in continuous cookers. The starch is cooked by introducing steam directly into the starch slurry. The cooked starch is cooled and diluted to the desired concentration by adding water to it before it enters the storage tank.


### Application

The K-Patents Process Refractometer, PR-23-GP is used to control the concentration of the cooked starch and also to verify that the liquid has been cooked properly. Precise measurement of the concentration provides consistency for the different paper grades production.

### Installation

Typical measurement range is 0-15% starch. Prism wash using high pressure warm water is recommended.

<b>PULP AND PAPER</b>	
<b>APPLICATION NOTE</b>	<b>3.03.01</b>
<b>PAPER SIZING: STARCH COOKING</b>	

<b>Instrumentation</b>	<b>Description</b>
 <p>The image shows the K-Patents Process Refractometer PR-23-GP. It consists of a white rectangular control unit with a digital display showing '29.93'. A red cylindrical component, likely the prism, is attached to the side of the unit. A metal probe with a red handle is also visible, connected to the unit.</p>	<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>
Automatic prism wash:	Prism wash with high pressure water.
Measurement range:	Refractive Index (nD) 1.3200 – 1.5300, corresponding to 0-100 % by weight.