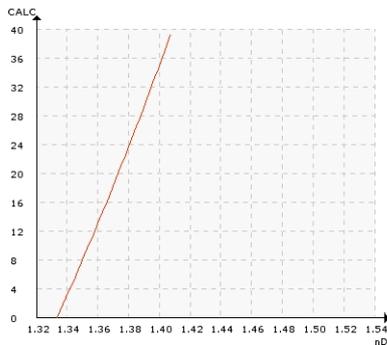


TOBACCO (NICOTINE, C₁₀H₁₄N₂)

Typical end products

Tobacco cigarettes

Chemical curve: R.I. per BRIX at Ref. Temp. of 20°C



Introduction

Typically in the premium brand cigarette manufacturing, the best parts of the tobacco leaves are selected. Therefore, a lot of stems and scraps are left over. These are not automatically discarded as they still have value.

Application

These valuable parts are soaked in water to form tobacco juice slurry. This slurry is then evaporated

into the desired concentration and sprayed onto paper. The tobacco paper sheets are then finely chopped and used as cigarette filling in a similar manner to regular tobacco leaves. This process produces a consistent flavour for the final cigarettes.

Installation

The critical part of this process is when the K-Patents Process Refractometer is needed to monitor the concentration of the tobacco juice (nicotine) in the slurry. This is accomplished by monitoring the sugars in the tobacco juice.

The tobacco process contains a lot of particles and bubbles, which can cause problems (errors, drift etc.) for density meters. The K-Patents refractometer is able to do the measurements without interference from the particles and bubbles.

The typical measurement range of tobacco juice is 10-40%. An automatic, water using prism wash is recommended. Special prism gaskets are available on request.

FOOD AND BEVERAGE	
APPLICATION NOTE	2.10.00
TOBACCO PROCESS	

Instrumentation	Description
	<p>K-Patents Sanitary Compact Refractometer PR-23-AC for small pipe line sizes of 2.5 inch and smaller.</p> <p>The PR-23-AC sensor is installed in the pipe bend. It is angle mounted on the outer corner of the pipe bend directly, or by a flow cell using a 3A Sanitary clamp or Varivent® connection.</p>
	<p>K-Patents Sanitary Probe Refractometer PR-23-AP for installations in large pipes, tanks, cookers, crystallizers and kettles, and for higher temperatures up to 150°C (300 °F). Installation through a 3A Sanitary clamp.</p>
Process wetted parts:	Teflon not allowed.
Automatic prism wash:	Prism wash with high pressure water: The components of a high pressure water system are a sensor with integral water nozzle mounted at the sensor head, a high pressure pump together with a power relay unit and an indicating transmitter equipped with relays.
Measurement range:	Refractive Index (nD) 1.3200 – 1.5300, corresponding to 0-100 Brix.