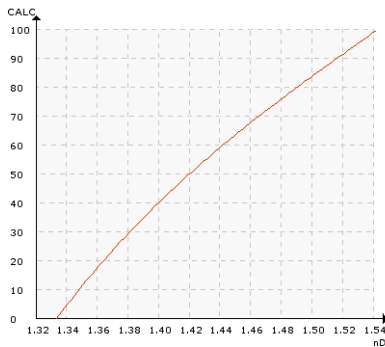


## CANE SUGAR

### Typical end products

Syrup, soft drinks, beer brewing, preserves, beverage, sweets, liqueurs, ethanol, etc.

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



### Introduction

The first step in refining, where the raw sugar crystals are treated with heavy syrup (typically 60 to 80 Brix) in order to remove the film of adhering molasses, is called affination. The syrup is used as a washing solution for the sugar crystals.

### Application




Raw sugar and affination syrup are mixed together. During this mixing, the molasses film on the crystal surface is softened and partly dissolved. The crystals are then separated from the syrup in centrifuges. After centrifuging, the sugar crystals are dissolved in water and diluted to a 54 Brix solution. The liquor is screened to remove coarse impurities.

### Installation

The K-Patents Process Refractometer PR-23 is used for the dissolving and diluting processes' automatic controlling.

Typical measurement range is 40-80 Brix and typical process temperature is about 60°C (140°F).

<b>SUGAR AND SWEETENERS</b>	
<b>APPLICATION NOTE</b>	<b>1.02.01</b>
<b>CANE SUGAR AFFINATION</b>	

<b>Instrumentation</b>	<b>Description</b>
	<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>
	<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>Measurement range:</p>	<p>Refractive Index (nD) 1.3200 – 1.5300, corresponding to 0-100 Brix.</p>