

Application Sheet - Sugar Crystalline

Colour Measurement Results

Application

Two types of sugar crystals have been set up on two different calibration channels.

- 1) Raw brown sugar.
- 2) Refined white sugar

Refined sugar colour is typically measured on the ICUMSA colour scale which looks at the colour of the sugar when dissolved in water. For refined white sugar, it's not really the whiteness of the sugar being measured, it's the yellowness. For highly refined white sugars, there are trace amounts of yellowness due to the presence of trace amounts of molasses left over from the refining process or the ageing of glucose into diglycerides.

So typically sugar samples are prepared in the laboratory and then measured on the ICUMSA device.

Reasons for Senware Colour Gauge

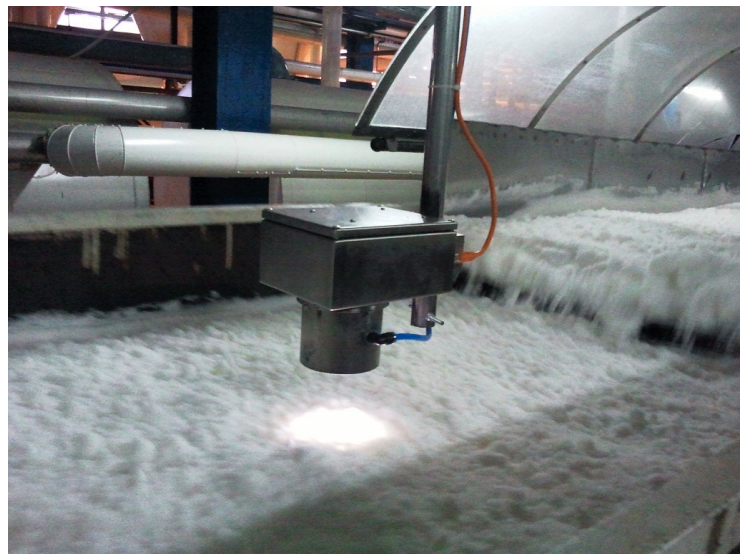
There are two main reasons for Senware systems:-

- 1) The Senware colour system can be used in the laboratory as a quick test, with no sample preparation, with sugar samples placed directly under the sensor.
- 2) The Senware colour system can be placed on-Line, giving continual colour readings, for process / Quality control etc.

Method

The Senware colour system typically reads colour in the widely accepted CIE L* a* b* standard. For sugar, the 'b' value (b being the yellowness) is compared with the corresponding ICUMSA readings with very good correlations (better than 0.9) on both the Raw and Refined sugars (Separate calibration channels being used).

Typical Colour System Sensor Installation :-



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