

# Application Sheet - Crisp Colour Grading

## Application

Typically Potato crisps are graded in colour from light to dark in five grades A , B , C , D and E with



**A B C D E**

Often checks are done by eye comparison to the above chart with values being recorded manually when standard laboratory checks are taken.

## Reasons for Senware Colour System

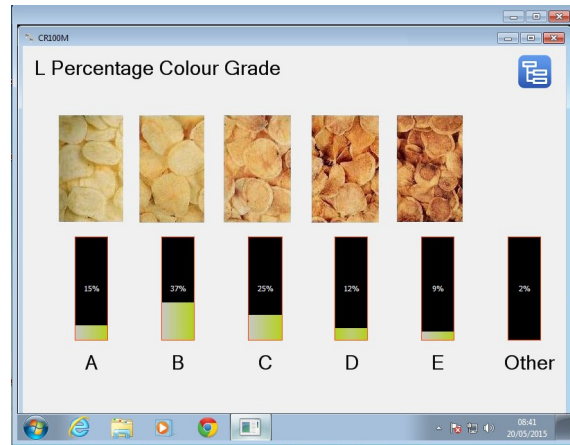
- 1) The Senware colour system is designed for *Continuous Online Colour Measurement*.
- 2) Colour data is analysed by software and displayed in a *histogram* showing the distribution of grades produced.
- 3) Typically *end of shift reports are produced* , showing the distribution of colour grades produced in that shift.
- 4) Along with L ,*colour chromatic coordinates a and b available*.
- 5) Solid state sensor , virtually maintenance free , sight window easy to clean.

## Method

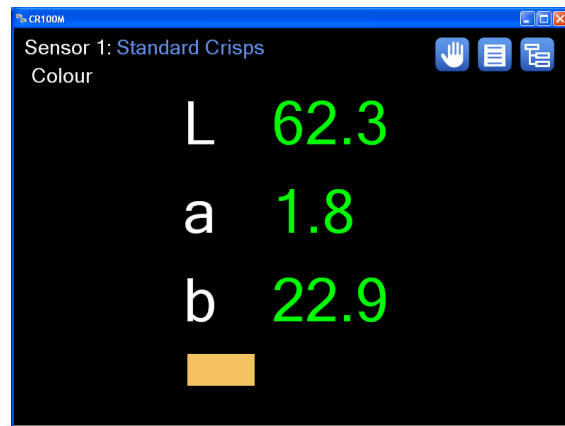
The Senware colour system typically reads colour in the widely accepted L a b standard.

These results can be converted to 4 - 20 mA signals (or other analogue outputs )for integration to plant PLC , but are typically displayed on Senware's Grading software , with data logged straight to PC available on the Local Area Network via Ethernet.

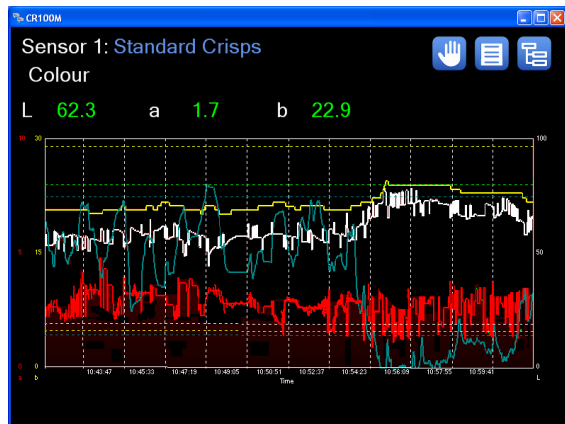
## Software Overview - Grading Screen:-



## Software Overview - Current Values Screen:-



## Software Overview - Current Values Screen:-



## Senware Limited

Unit 4, Adelaide House  
Corbygate Business Park  
Corby, Northants. NN17 5JG

## For More Information :-

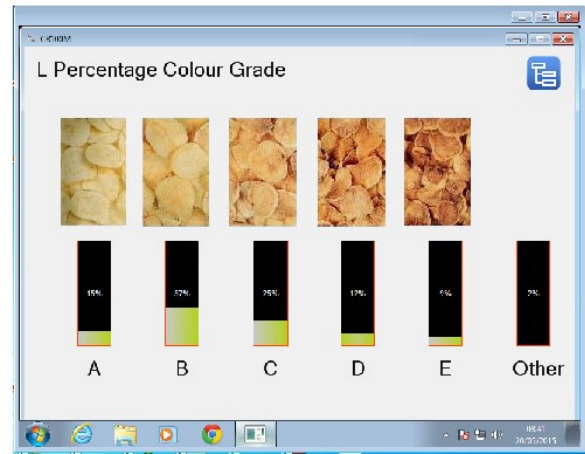
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# Application Sheet - Crisp Colour Grading

## Typical Colour System Overview :-



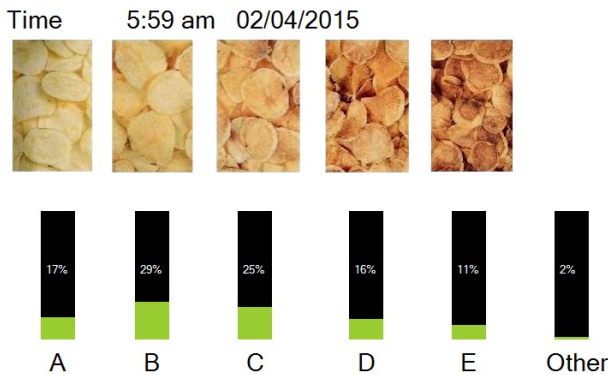
Lab sent to software



Sensor using white light to measure colour Lab.

Software produces histogram of L grades measured

## Typical Shift Report Output :-



## Typical Data Output file Opened directly in Excel :-

	A%	B%	C%	D%	E%	O%	L1	a1	b1	h1	Date	Time
1	7	15	25	42	6	5	64.2	-0.1	26.3	96.8	04/04/2015	06:06:48
2	5	32	41	20	0	55.8	4.6	21.5	28.9	04/04/2015	06:16:48	
3	4	13	33	33	10	7	61.7	2.7	24.7	58.5	04/04/2015	06:26:48
4	6	17	36	26	7	8	53.5	3.6	20.9	38	04/04/2015	06:36:48
5	6	18	35	26	8	8	58.7	2.2	23.7	67	04/04/2015	06:46:48
6	8	19	33	24	7	8	59.2	1.4	23.9	73.9	04/04/2015	06:56:48
7	9	18	32	24	7	10	61.2	2.4	24.4	57.7	04/04/2015	07:06:48
8	8	16	31	29	7	9	54.4	4.7	21.1	28.7	04/04/2015	07:16:48
9	7	14	28	36	7	7	54.1	5.8	20.4	10.1	04/04/2015	07:26:48
10	6	13	25	43	7	6	54.5	5.6	20.5	10.8	04/04/2015	07:36:48
11	6	12	25	45	7	6	59.9	3.2	23.3	48.7	04/04/2015	07:46:48
12	6	12	25	45	7	5	52.2	4.9	20.3	24.7	04/04/2015	07:56:48
13	5	12	25	46	6	5	53.3	5.3	20.6	20.3	04/04/2015	08:06:48
14	6	12	24	46	7	6	66.7	1.3	26.2	67	04/04/2015	08:16:48
15	6	12	24	45	7	6	53.6	3.6	21.2	42.3	04/04/2015	08:26:48
16	6	13	25	44	6	6	57.3	2.8	22.7	51.7	04/04/2015	08:36:48
17	6	14	26	43	7	6	56.5	2.7	21.2	39.9	04/04/2015	08:46:48
18	6	14	26	41	6	6	56.6	2.6	22.7	56.8	04/04/2015	08:56:48
19	6	14	27	41	6	6	70.6	1.9	27.6	65.1	04/04/2015	09:06:48
20	6	14	27	40	6	7	59	1.8	23.7	68.3	04/04/2015	09:16:48
21	6	14	27	40	6	7	53.4	5.9	20.2	8.8	04/04/2015	09:26:48
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