



Novo-Curve Application Notes

GLOSS MEASUREMENT OF ALUMINIUM CANS



Overview

Gloss has been defined as 'The attribute of surfaces that causes them to have shiny or lustrous, metallic appearance.'

Manufacturers design their products to have maximum consumer appeal. Traditionally, a high gloss finish is often perceived to be a higher quality product and can therefore command a price-premium.

It is for these reasons that many manufacturers monitor the gloss of their products to ensure batch-to-batch consistency of their products.







NOVO-CURVE 🔭

Novo-Curve Glossmeter

- \cdot Curved & flat surfaces
- $\cdot \text{ Small areas}$
- Highly polished metals
- Matt finishes

METHOD

Measuring the gloss of a cylindrical object



STEP 1: Location jigging posts and a long, wooden spacer were used on the instruments measuring platen to centralise the can onto the aperture to ensure repeatable results were made each time.



STEP 2: The spacer allowed the can to be moved right / left and rotated over the aperture to make measurements of the white and black areas on the can as requested and results noted.

The sample was oriented as shown in the images. Samples were also measured in one position a number of times for repeatability.

STEP 3: 10 measurements were made in the black section of each sample and the average reading reported.10 measurements were made in the white section of each sample and the average reading reported.6 samples were measured.

Surface gloss readings are affected by grease from fingerprints so cleaning and careful handling during measurement is essential to ensure no erroneous results are obtained.

RESULTS

Findings of measurements

| | Can 1 | Can 2 | Can 3 | Can 4 | Can 5 | Can 6 | Min. | Max. | Average | SD |
|---|-------|-------|-------|-------|-------|-------|------|------|---------|------|
| WHITE Average gloss value in GU (60°) | 42.9 | 39.5 | 37.1 | 39.8 | 39.0 | 40.4 | 37.1 | 42.9 | 39.4 | 2.01 |
| BLACK Average gloss value in GU (60°) | 37.2 | 37.4 | 35.9 | 37.2 | 37.2 | 36.7 | 35.9 | 37.4 | 37.0 | 0.55 |

CONCLUSION





Observations of results

As the Novo-Curve aperture is 2mm x 2mm it can measure the change of gloss over the diameter of the can.

The use of the footswitch included with the instrument assisted in sample positioning.

Features of the Novo-Curve



Simple checking of curved surfaces

For curved surfaces, the correct gloss value is the peak value identified on the sample. Continuous read mode on the Novo-Curve greatly simplifies this process.



Certainty of measurement

For improved gloss control, calibrate on a standard that matches closest to your sample. Additional standards are available from matt to mirror finish.



Repeatable sample positioning

Bespoke sample securing systems allow multiple samples to be measured in exactly the same place.



Detailed analysis of results

USB data transfer of results to Novo-Soft for further analysis and export to CSV.



Hands free sample measurement

The included footswitch enables the user to easily manipulate the sample for measurement.



Statistical analysis of results

On-board statistical analysis of batch readings (Max, Min, Mean, SD and CV).

FULL PRODUCT DETAILS







We offer two options for you to try out the Novo-Curve Glossmeter before buying



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Online demonstration: Online presentation of the Novo-Curve Glossmeter with your samples measured LIVE on Zoom, Microsoft Teams or Skype. Includes a consultation with an application specialist

Factory sample testing: Send in samples of your material for testing and receive a comprehensive test report

Arrange a demo

Ready to receive a quote?

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