Micro Gloss by Innventia — a way of measuring gloss quality as we perceive it

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Gloss measurements are normally made using standard equipment like Hunter, Lehman and Zehntner and giving only a single mean gloss value. But, a sample can have a high mean gloss value (normally considered as good) but at the same time have a high gloss variation which is disturbing when looking at a printed picture. The micro gloss method can quantify such disturbing gloss textures and 'glare effects' on printed and unprinted samples.

Example

Gloss variation can look very different:

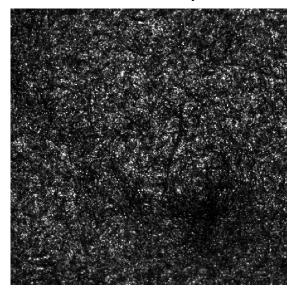




Image size 13 x 13 mm

How this is made

Images of the samples are captured using a $20^{\circ}/20^{\circ}$ degree setup for camera and illumination. Frequency analysis is used to calculate the gloss variations at small-, mid- and large scales.

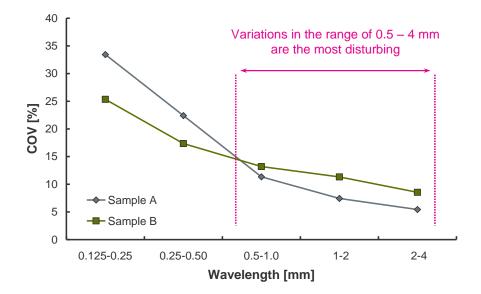
The image size is 13x13 mm and normally 9 areas are evaluated for better accuracy. Both printed and unprinted samples can be measured. The method is best suited for glossy papers.





What you get

• The gloss variations divided into wavelength classes (saved in an Excel-file). Since wavelengths in the range of 0.5 – 4 mm are most disturbing at normal reading distance these are the most important data.



- The most disturbing gloss variations in the range of 0.5 to 4 mm are also combined into one single gloss variation value that correlates well to the human perception. See figure above where sample B has less variations in the small scales but will be considered more disturbing to a viewer because of the higher variations in wavelengths 0.5 4 mm.
- Mean gloss level (20°).
- The TIFF-images of the samples saved on a CD (optional).

ContactFor more information about the method, prices etc. contact:



Hans Christiansson
Phone: +46-8-676 73 81
hans.christiansson@innventia.com



Peter Rättö
Phone: +46-8-676 7463
Peter.ratto@innventia.com

