



Application Note AN N201

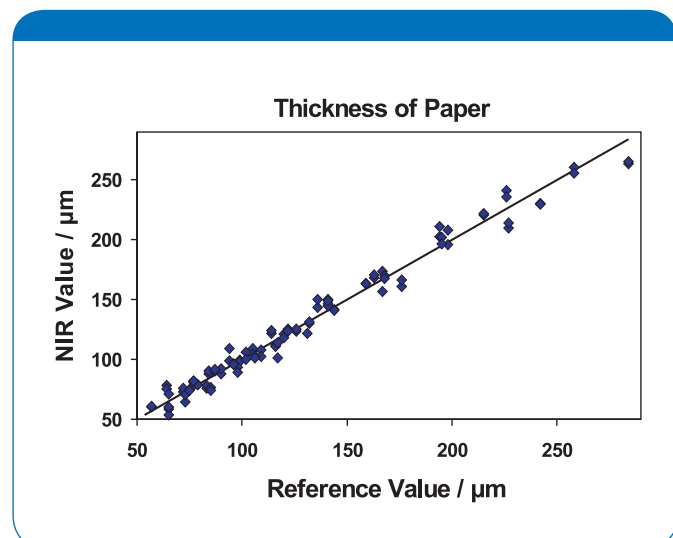
FT-NIR Quality Control of Paper

Determination of Physical Parameters. The FT-NIR Spectrometer MPA with integrating sphere is a fast, precise and non-destructive tool to effectively and cost efficiently help you with your daily QA/QC tasks.

Without any sample preparation all important physical parameters of paper can be determined with one measurement only. The sample is put onto the integrating sphere



with gold coated reflection standard on top and the measurement is started. After a few seconds you get all the information you have calibrated.



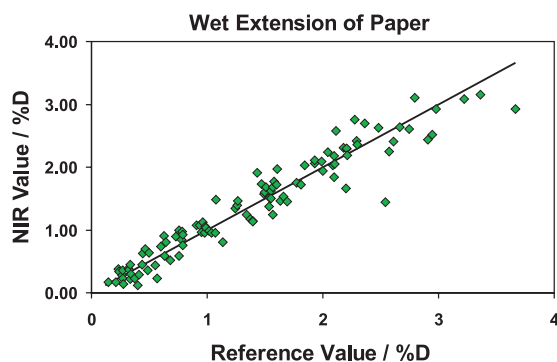
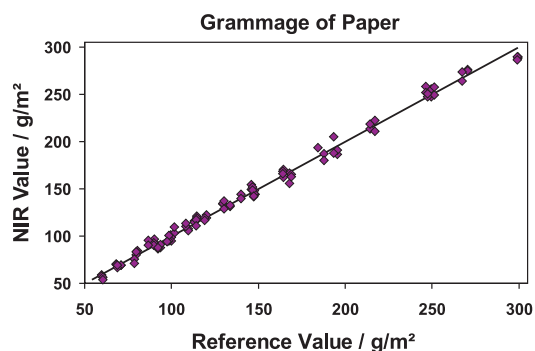
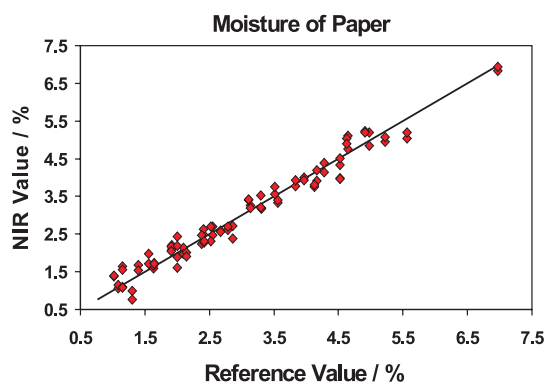
Calibration Examples:

- Thickness 55 - 295 $\pm$ 7.6 μm
- Moisture 0.7 - 7 $\pm$ 0.25 %
- Grammage 60 - 300 $\pm$ 5 g/m^2
- Wet Extension 0.15 - 3.66 $\pm$ 0.23 %

Application

The NIR spectroscopy is well utilized in the pulp and paper industry to ensure fast and precise quality control of paper products.

Not only the physical parameters can be determined but also the detectable fillers like clay and talc, wet strengtheners (e.g. urea), ash content or coatings (e.g. silicone). All sorts of papers can be analyzed, from teabags, tissue paper, beyond photocopying paper up to heavy cardboards.



● Bruker Optik GmbH

Ettlingen · Deutschland
Phone +49 (7243) 504-2000
Fax +49 (7243) 504-2050
info.bopt.de@bruker.com

Bruker Optics Inc.

Billerica, MA · USA
Phone +1 (978) 439-9899
Fax +1 (978) 663-9177
info.bopt.us@bruker.com

Bruker Shanghai Ltd.

Shanghai · China
Phone +86 21 51720-890
Fax +86 21 51720-899
info.bopt.cn@bruker.com

www.bruker.com/optics

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