

Measuring and test equipment for the paper industry

ZGM 1020 Glossmeter

single angle for all gloss ranges

Portable, accu-powered and sturdy precision single angle glossmeter

Application areas:

- Determination of all gloss ranges of paper as well as coatings

Single angle: 20°, 45°, 60°, 75°



ZGM 1022 Glossmeter

dual angle for all gloss ranges

Portable, accu-powered and sturdy precision dual angle glossmeter

Application areas:

- Determination of all gloss ranges of paper as well as coatings

Dual angle: 20° and 75°



ZRM 1021 Reflectometer

lightness / hiding power

Portable, accu-powered and sturdy precision reflectometer

Application areas:

- Measurement of colour density and brightness of dispersion
- Determination of brightness

Single angle: 45/0°



ZGM / ZLR
Mini-measuring head

gloss measurement on small surfaces

Separate measuring-head for the ZGM and ZLR glossmeters
Available as ZGM/ZLR single angle unit or as ZGM 1022 dual angle
in combination with one angle in the basic unit

Application areas:

- Determination of all gloss ranges in a very confined space

Single angle: 20°, 45°, 60°
Dual angle: 20°, 45° or 60° Mini-Measuring-Head
in combination with 20°, 45°, 60°, 75°
or 85° in the basic unit



ZLR 1050
Laboratory glossmeter

statistic glossmeter

Portable, off-the-line statistic glossmeter with built-in printer

Application areas:

- For the determination of all gloss ranges of paper and coatings

Single angle: 20°, 45°, 60° and 75°
Mini-measuring-head: 20°, 45° and 60°
Triple angle: 20°/60°/75° and 45°/60°/75°



ZLR 1050F
Hinged, measuring head Flip-Flap

definable positioning

Hinged, especially for paper industry

Single angle: 20°, 45°, 60° and 75°
Triple angle: 20°/60°/75°



ZPV 2030 Precision-vacuumpates

application and silk-screen printing

Application areas:

- As an absolutely plane substrate for fixing very different materials
- As a helpful accessory when using wet film applicators
- For silk-screen printing

Versions:	Dimensions in mm	Weight in kg
2030.A4	307 x 220 x 20	3
2030.A3	440 x 320 x 28	6
2030.S	on request	



Versions 2030.A4 and 2030.A3 are standard plates with a series of holes for holding of rigid materials such as paper charts, test panels, plastics and glass plates.

Precision-vacuumpates with suction for holding of thin and flexible materials such as plastics and fine papers device are available as a special customer version.

Optionally, we offer e vacuum pump with a pumping capacity of 3.5 m³/h to all our ZPV 2030 Precision-vacuumpates.

ZSA 2110 - 2112 Wire-bar applicators

application adjusted gap height

Application areas:

- Production of uniform films of paints, adhesives as well as similar products on flexible substrates for testing purposes
- To apply multiple layers successively or close together

Versions:	wet film thickness in µm	film width
ZSA 2110	20/50/75/100/125/150/175/200	80 mm
ZSA 2111	20/50/75/100/125/150/175/200	200 mm
ZSA 2112	on request	on request



ZOL 1190 On-Line-Gloss-Measuring-System

quality control

Tailored gloss-measuring system for the industrial area (with 1000 measurements per seconds)

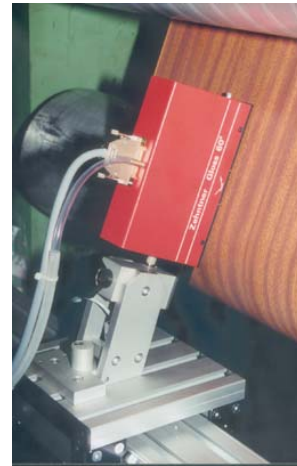
Application areas:

- Contactless system for on-line determination and control of all gloss ranges directly on the continuous material
- Input of the gloss range, optical warning system
- Statistics and graphic illustration over the whole continuous material

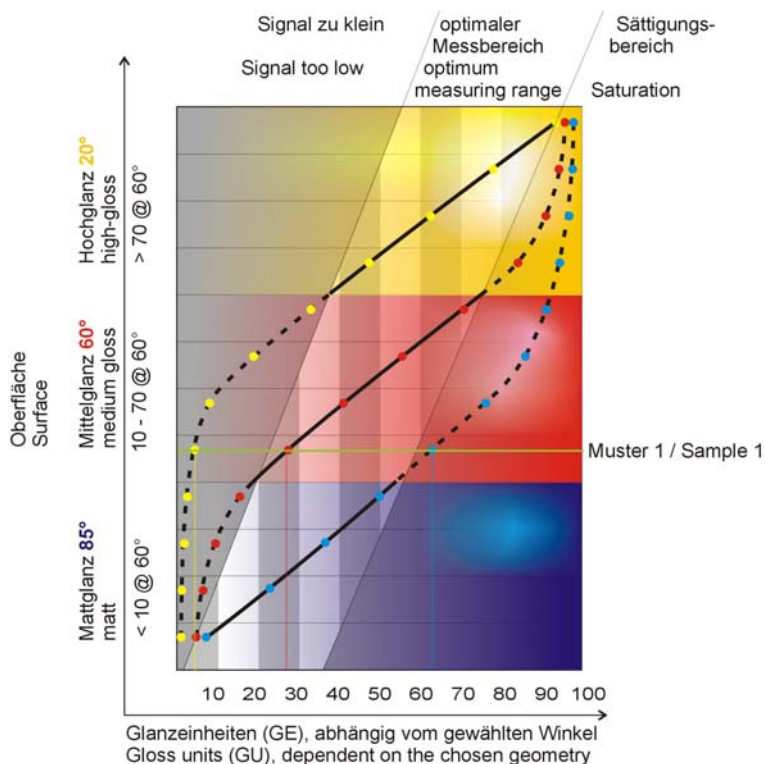
1, 2 and up to 3 angles in one and the same measuring-head.

Up to 8 measuring heads can be connected at the same time to take measurements at different places of the continuous material

Angles: 20°, 45°, 60°, 75°



Choosing the correct measuring geometry



If you measure the sample 1 (green line) with a measuring angle 60° you will receive approx. 28 GU. In this case the 60° is the correct measuring angle.

If you receive values less than 10 GU, you have to choose a 85° measuring angle.

If you receive values higher than 70 GU, you have to choose a 20° measuring angle.