



**Gloss Measuring
Device
PICOGLOSS
560 MC**

**Gloss Measuring
Device
PICOGLOSS
560 MC-S**

Model 560 MC
Extremely small,
convenient
Gloss Measuring Device

60° Measuring geometry
3 Measuring modes

Model 560 MC-S
Extremely small,
convenient
Gloss Measuring Device
with remarkably small
measuring aperture

60° Measuring geometry
2 Measuring modes



testing equipment for quality management

ERICHSEN

Technical Description

**Integrated Mirror-gloss
Measurement**

**Calibration with only
one Standard**

**Automatic
change-over
to Mirror-Gloss**

**For gloss measurement
on small specimens
(Model 560 MC-S)**

PICOGLOSS 560 MC

Design

The **PICOGLOSS 560 MC** is one of the smallest portable gloss-measuring devices ever designed. It is smaller than a PC mouse and therefore ideal for on-site use. The universal 60° measuring geometry and the automatic change-over of mirror-gloss make this instrument suitable for a wide range of applications.

Because of the compact dimensions of the measuring instrument and the measuring aperture gloss measurements can be carried out without difficulty even on small or narrow specimens as well as in places which are not easily accessible.

Special Features

• **Handling**

Single-key operations make gloss measurements extremely easy and comfortable. The reading remains stored in the display for about 30 s and is then switched off automatically to save the battery. However, the last measured value is preserved and is shown in the display when the instrument is switched on again.

• **Display**

In addition to the measuring and calibrating values the high-contrast LC display also shows messages and information.

• **Calibration**

The **PICOGLOSS 560 MC** requires only one calibrating standard for normal two-position calibration. After key pressure the calibration routine runs automatically. The calibration value is stored on the standard (EPROM).

• **60° Gloss measurement**

Specifically for gloss measurements on lacquers and plastics in the range of 0 - 150 gloss units.

• **Mirror gloss measurement**

Mirror-gloss measurements can be conducted on metallic surfaces in the range of up to 1000 gloss units. There is an automatic change-over of the measuring range at 150 gloss units.

• **Detection of external light**

The effect of external light can be determined by conducting measurements with the lamp switched off.

• **USB interface**

The measured data can be transferred to a PC by means of the USB cable supplied and evaluated using the software PICOSOFT II *).

• **Power supply**

The **PICOGLOSS 560 MC** is operated by a round cell, the capacity of which is adequate for at least 10,000 measurements. When using a PC, the power supply is taken over by the USB interface of the PC.

Technical Data

Dimensions (L x W x H):	(105 x 31 x 59) mm
Net weight:	200 g
Measuring aperture:	(10 x 24) mm
Measuring spot:	(8 x 16) mm
Measuring geometry:	60°
Light source:	LED
Detector:	Si photo-cell
Display:	8-digit LCD height of digits 11.5 mm
PC interface:	USB
Power supply:	1 round cell (LR03)
Permissible temperature range:	
Storage:	- 10 °C to + 60 °C
Operation (non-dewy):	+ 15 °C to + 40 °C
Reproducibility:	0.2 GU in the range of 0 to 150 GU 0.5 GU in the range of 150 to 1000 GU
Reproducibility in case of interfering irradiation (EN 61000-4-3):	1 GU

(GU* = gloss unit)



PICOGLOSS 560 MC -
Gloss measurement on lacquered sheets

PICOGLOSS 560 MC-S

Design

The **PICOGLOSS 560 MC-S** is as well as the PICOGLOSS 560 MC one of the smallest portable gloss-measuring devices ever designed.

Especially even due to the continuously increasing number of enquiries from the automotive range regarding gloss measurements on small parts, the **PICOGLOSS 560 MC-S** provides with its remarkably small measuring aperture (round, 3 mm Ø) the possibility of gloss measurements. Up to now only a user-dependent non-communicable visual valuing of gloss values was possible.

Gloss measurements on small parts require some attention to a few essential facts:

It has to be considered, that a Glossmeter with such a small measuring aperture has a quite high sensitivity for all influences which could effect the measured value (flat- and evenness, radius, structures, slight mottling).

Therefore, it is essential that the surface to be measured is absolutely flat and even as well as with a possibly homogeneous appearance.

Otherwise, even already a slight change of the unit's position (distinctly less than 1 mm) could bring an area of the surface to be measured into the measuring focus, which has an other gloss appearance. This would immediately be recognized as a variation at the displayed value, because due to its sensitivity the **PICOGLOSS 560 MC-S** is able to measure/display the different/varying gloss of areas which are very close to each other .

The gloss impression through humans' eyes is the result of a mixed impression of an area with a minimum size which is distinctly larger than the **PICOGLOSS 560 MC-S'** measuring aperture .

So, also common Glossmeters measure a larger area and the value is an "average" of its mixed impression.

But, unfortunately, such common Glossmeters are not suitable to be used for the often enquired gloss measurements on a lot of small specimens to be measured, because their larger measuring aperture will be not completely covered by these specimens .

Due to the high sensitivity of the **Model 560 MC-S**, it is recommended to take a sufficient number of measurements from the area to be measured, with slight positioning changes, and understand the average of all nearly similar values as the actual gloss value of the small specimens to be measured .

For bigger specimens, the common Glossmeters with their "less sensitive" larger measuring aperture are still the comfortable right choice .

Special Features

• **Handling**

Single-key operations make gloss measurements extremely easy and comfortable. The reading remains stored in the display for about 30 s and is then switched off automatically to save the battery. However, the last measured value is preserved and is shown in the display when the instrument is switched on again.

• **Display**

In addition to the measuring and calibrating values the high-contrast LC display also shows messages and information.

• **Calibration**

The **PICOGLOSS 560 MC-S** requires only one calibrating standard for normal two-position calibration. After key pressure the calibration routine runs automatically. The calibration value is stored on the standard (EPROM).

• **60°Gloss measurement**

Specifically for gloss measurements on lacquers and plastics in the range of 0 up to approx. 15 GU* (display with two decimal places) and in the range of 0 up to 150 GU* (display with one decimal place).

• **Mirror gloss measurements**

Mirror-gloss measurements can be conducted on metallic surfaces in the range of up to 1000 gloss units. There is an automatic change-over of the measuring range at 150 gloss units.

• **Two times change-over of the display resolution**

- **from** 0.00 GU to 15.00 GU → **to** 15.0 GU to 150.0 GU

- **from** 15.0 GU to 150.0 GU → **to** 150 GU to 1000 GU

• **USB interface**

The measured data can be transferred to a PC by means of the USB cable supplied and evaluated using the software **PICOSOFT II ***).

• **Power supply**

The **PICOGLOSS 560 MC-S** is operated by a round cell, the capacity of which is adequate for at least 10,000 measurements. When using a PC, the power supply is taken over by the USB interface of the PC.

(GU* = gloss units)



PICOGLOSS 560 MC-S –
Gloss measurement on small specimens

Technical Data

Dimensions (L x W x H):	(105 x 31 x 59) mm
Net weight:	200 g
Measuring aperture:	3 mm Ø (round)
Measuring spot:	3 mm Ø (round)
Measuring geometry:	60°
Light source:	LED
Detector:	Si photo cell
Display:	8-digit LCD height of digits 11.5 mm
PC interface:	USB
Power supply:	1 round cell (LR03)
Permissible temperature range:	
Storage:	- 10 °C to + 60 °C
Operation (non-dewy):	23 °C +/- 2 °C
Reproducibility:	0.2 GU in the range of 0 to 15 GU 0.2 GU in the range of 0 to 150 GU 0.5 GU in the range of 150 to 1000 GU
Reproducibility in case of interfering irradiation (EN 61000-4-3):	1 GU

(GU* = gloss unit)

Order Informations	
Ord.-No.	Product-Description
0248.01.31	Gloss Measuring Device PICOGLOSS 560 MC
0248.02.31	Gloss Measuring Device PICOGLOSS 560 MC-S
<i>Included in the scope of supply:</i> High gloss standard Battery (round cell LR03) USB cable Lens cloth Transport case Operating instructions	

Accessories	
Ord.-No.	Product-Description
0791.01.32	Medium gloss standard
0718.01.32	High gloss standard
	PICOSOFT II *)

The software PICOSOFT II is available free of charge at www.erichsen.de/download.

Reference Class:

The **PICOGLOSS 560 MC/560 MC-S** is supplied with a Manufacturer's Certificate M in accordance with DIN 55 350-18 that includes among others the following information:

Actual and setting values of the gloss standards, product indication, test equipment used with calibration status, date, name of inspector. In the range up to 100 gloss units the linearity is checked by means of 4 gloss standards (the maximum deviation permissible is 1 gloss unit)

Subject to technical modifications.
Gr. 17 - TBE - 560 MC/560 MC-S – V/2010