Colo Science
Laboratory & Scientific Equipment

COLO.SCIENCE · TECHNICAL SPECIFICATION

VLT, UV AND IR REJECTION, SHGC AND TSER · WINDOW FILM AND GLAZING

CH1020

Light Transmittance Meter · UV · VIS 380–760 nm · IR 940 / 1400 nm / full band · SHGC · TSER · 0.5 s

CH1020 Light Transmittance Meter is a compact instrument for the light transmittance of glass, window film and other transparent materials. It measures VLT, UV rejection, IR rejection (940 nm, 1400 nm, full band), SHGC, TSER in about 0.5 s — the values used to describe solar control of window film and automotive glazing.

Visible light transmittance · UV rejection · IR 940 nm / 1400 nm / full band · SHGC · TSER · Resolution 0.1 % · Accuracy ±1.5 % · 0.5 s · Samples up to 47 mm · 3.5" colour screen · USB-C power

Document type: **Technical Specification Sheet**
Product: **CH1020 Light Transmittance Meter**
Format: Print layout · A4 landscape

CH1020 product page · Spectroscopy & Color — overview · Spectroscopy & Color catalogue · Request quote

MEASURED	RESOLUTION
VLT · UV · IR	0.1 %
ACCURACY	**TIME**
±1.5 %	≈ 0.5 s



CH1020 · light transmittance meter

MODEL	ADDRESS / HQ	CONTACT
CH1020	Polje ob Sotli 4 SI-3255, Slovenia	sales@colo.si +386 70 713 437

CH1020 · product overview

VLT, IR 940/1400 nm, SHGC, TSER

CORE TECHNOLOGY

Uv, visible, infrared 940 nm, infrared 1400 nm and full-band infrared — the full set of sources for solar-control film and glazing.

Silicon photodiode sensors — fast and stable response; result in about 0.5 s.

Automatic calibration at switch-on — one-key measurement, no setup.

Slot for samples up to 47 mm — thin film, laminated and insulated glass.

Resolution 0.1 %, accuracy better than ±1.5 % — on colourless uniform translucent samples.

SHGC and TSER — solar heat gain coefficient and total solar energy rejected, as used in window-film specifications.

Compact and light — 515 g, powered over USB-C from adapter or power bank.

3.5" colour screen, USB data output.

PRODUCT HIGHLIGHTS



Clear readout
VLT and rejection values shown together on the 3.5" screen.



Slot for flat samples
Glass, film or sheet up to 47 mm thick slides into the gap.



Window film
Check of tinted and solar-control film before and after fitting.



Quick check
Switch on, automatic calibration, insert the sample — result in 0.5 s.

APPLICATIONS



Window & automotive film



Architectural glass



Plastic sheets & film



Incoming control

CH1020 · technical parameters

UV · VIS 380–760 nm · IR 940 / 1400 nm / full band · SHGC · TSER · 0.5 s

TECHNICAL PARAMETERS

Light sources	UV, visible, infrared 940 nm, infrared 1400 nm and full-band infrared
Sensor	Silicon photodiodes
Wavelength range	Visible 380–760 nm; infrared peaks 940 nm and 1400 nm; full-band infrared
Measured values	VLT, UV rejection, IR rejection (940 nm, 1400 nm, full band), SHGC, TSER
Resolution	0.1 %
Measuring time	Approx. 0.5 s
Accuracy	Better than ±1.5 % (colourless uniform translucent sample); better than ±1 % on factory standard samples
Sample thickness	Up to 47 mm
Calibration	Automatic at switch-on

Display	3.5" TFT colour
Interface	USB
Power	5 V DC, USB-C
Lamp life	More than 3 million measurements in 5 years
Dimensions, weight	203 × 120 × 29 mm (L × W × H), 515 g
Instrument languages	English, Chinese
Environment	Operation 0–40 °C, 0–85 % RH non-condensing, altitude up to 2000 m; storage −20–50 °C

CH1020 · what it measures and which model

Light transmittance, UV and IR rejection of glass and film

UNDERSTANDING THE VALUES AND CHOOSING THE MODEL

What the instrument measures

VLT (visible light transmittance) — how much daylight passes the glass or film, in %.

UV rejection — share of ultraviolet radiation blocked; protects interiors and skin.

IR rejection — share of infrared (heat) blocked; 940 nm, 1400 nm and full-band values.

SHGC / TSER — solar heat gain coefficient and total solar energy rejected, the summary values of solar-control film.

Light transmittance meters — which model?

Model	CH1010	CH1020
VLT, UV rejection	✓	✓
IR 940 nm	✓	✓
IR 1400 nm, full-band IR	—	✓
SHGC, TSER	—	✓

CH1010 for visible, UV and 940 nm infrared values; CH1020 adds 1400 nm and full-band infrared, SHGC and TSER for solar-control film. For haze, clarity and colour of transparent materials see the CH1100–CH1810 haze meters.

Standard delivery

Instrument	CH1020 light transmittance meter
Power and data	Power adapter, data cable
Other	User guide

Options

Service	Calibration check on request

Typical samples

Window film installers: VLT and heat rejection before and after fitting.

Glass processing: tinted, coated and laminated glass.

Automotive: glazing and film checks.

Plastics: transparent sheets and covers.

CH1020 · configuration and support

Ordering information, configuration checklist and contact

CONFIGURATION AND SUPPORT



CH1020 · measuring a film sample in the slot

Ordering information

Model	CH1020 Light Transmittance Meter
Measured values	VLT, UV rejection, IR rejection (940 nm, 1400 nm, full band), SHGC, TSER
Sample	Up to 47 mm thick
Interface	USB, USB-C power

Configuration checklist

Samples: glass, film or sheet and its thickness (up to 47 mm).

Values: VLT and UV only, or also IR, SHGC and TSER for solar-control film.

Use: laboratory, incoming control or on-site checks.

SUPPLIER AND SUPPORT

COLO Lab Experts
Polje ob Sotli 4, SI-3255, Slovenia

Selection guidance: send the material, thickness and the values you report — we confirm the model and delivery time with the quotation.

QUICK CONTACT

colo.si
sales@colo.si
+386 70 713 437

COLO.SCIENCE · COLOUR AND APPEARANCE MEASUREMENT

Checking glass or window film?

Send the material and the values you need — we propose the model and confirm it with the quotation.

Request quotation | sales@colo.si | +386 70 713 437

Specifications are subject to change without notice. Values refer to standard laboratory conditions.