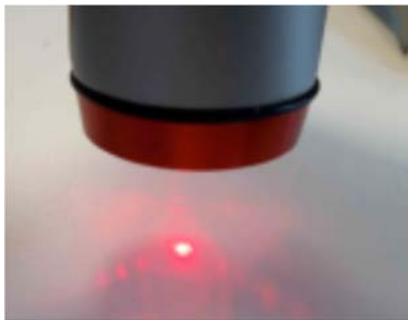including

visualization

software

PaintChecker
mobile LED
Blue 591

USB interface

for

data storing

testing equipment for quality management

ERICHSEN
since 1910

Technical Description

DIN EN 15042-2

Especially for
powder coatings
<u>before</u> curing

Photothermal measuring
device for the manual checking
of coating thicknesses in a
production-related
environment

Design and Function

The **PaintChecker mobile LED blue 591** is a photothermal measuring device used for the non-contact and non destructive determination of coating thicknesses in accordance with DIN EN 15042-2. Specially developed for the measurement of powder coatings **before** curing on various substrates such as steel, aluminium and ceramics. Cured coatings can also be measured. The precise layer thickness measurement is geometry indepedent and therefore also possible on complex parts such as corners, edges or curved inner sides.

The photothermal measuring method used in **PaintChecker mobile LED Blue** is an indirect measuring method. This means that the measuring device does not measure coating thickness values directly, but that they are derived indirectly from the evaluation of the photothermal measurement signal.

The sensor made of extruded high-strength plastic is designed for manual handling and contains, in addition to eye-safe positioning LEDs (UV light), the measurement data recording.
The fabricated cable that connects the sensor and the controller unit is 0.8 m in length.
With the ergonomic, lightweight sensor, measurements can be made directly by hand. With its optomechanical structure, the sensor can also be used in the immediate vicinity of the application.

The controller-unit is contained in a rugged aluminum housing. All of the settings can be selected and modified conveniently with the membrane keypad using a context-related menu that is easy to understand.

The USB connection is used for communicating with a PC. The software allows complete control over the measurement procedure and storage of measurement data.The measuring values are saved in measuring series for immediate or later use.

Technical Data

Sensor:

Coating thickness range	Typ. 20 - 150 µm - powder (metallic substrate) Typ. 50 – 250 µm µm - powder thk (metallic substrate) Typ. 20 – 200 µm µm - cured (metallic substrate)
Field size	Ø = 1 mm
Repetition rate	max. 1 Hz
Measuring period	64 .. 1.024 ms
Risk group	3
Laser power	0.45 W
Laser operating mode	pulsed operation
Wave length	365 nm
Resolution	approx. 1%.from current reading
Measurement accuracy	approx. 3% from current reading
Measurement distance	35 mm
Distance tolerence	± 3 mm
Angle tolerance	± 15°
Dimensions	L = 160 mm, Ø = 50 mm
Weight	ca. 225 g

Controller unit

Supply	4 Lithium ion batteries, type 14500
Interface	USB
Dimensions	L x W x H = 180 x 80 x 42,5 mm
Weight	approx. 700 g

Order Information	
Ord.-No.	**Product Description**
05910151	**PaintChecker mobile LED blue 591 consisting of sensor and controller unit, completely in a robust hard-shell case.**

Included in the scope of supply::
- ◆ Sensor with lead
- ◆ Controller unit
- ◆ Protective case for controller unit
- ◆ Reference sample
- ◆ Lithium-ion rechargeable 14500 batteries (4 pcs.)
- ◆ Quadruple battery charger
- ◆ Software
- ◆ USB cable
- ◆ Manual

The right of technical modifications is reserved.
Group 10 – TBE 591 – III/2020

ISO 9001
BUREAU VERITAS
Certification