SITA

Contact-free cleanliness inspection of part surfaces by fluorescence measurement



Cleanliness inspection – Layer thickness monitoring

SITA CleanoSpector

Advantages

Features

- Check and adjustment with calibration standards
- Mobile and robust measuring device for flexible use at the process and in the laboratory
- Intuitive operation: simple and fast measuring as well as controlling
- Various spacer available for easy measurement of different part shapes

Application fields

- Contact-free cleanliness inspection of metal part surfaces at the push of one button
- Quality assurance of industrial cleaning processes
 - Layer thickness measurement e.g. of corrosions protection oil and primer



Benefits

- Highest product quality by monitoring limit values
- Documentation of slightest contamination on various shaped surfaces
- Efficiency by process optimization
- Customised inline inspection system (SITA clean line CI) available

Fluorescence measuring principle



Cleanly inspected

Applications











- Cleanliness inspection of metal parts after machining
- Inspection of functional surfaces after selective cleaning (laser cleaning, ultra-fine plasma cleaning, CO2 snow blasting, . . .)
- Inspection for residues of release agent on aluminium die-cast parts prior to adhesive bonding
- Monitoring the cleanliness of metal parts before laser welding
- Inspection for filmic contamination on parts in medical- or vacuum technlogy
- Detecting residual agents and encapsulation material on bond pads before bonding
- Surface inspection on electrical contacts after stripping of isolation material

 Inspection for sufficient layer thickness when applying corrosion protection oils or when applying a primer prior to adhesive bonding



The SITA CleanoSpector assures a high part quality in surface treatment processes.

SITA CleanoSpector

Technical data

Fluorescence intensity

Measuring range 0...2,000 RFU

(Relative Fluorescence Unit)

Max. deviation 0.5 % of measuring range

Resolution 0.1 RFU

Sensor optics

Excitation 365 nm, max. 150 mW

 $\begin{array}{lll} \mbox{Detection*} & \mbox{460 nm} \\ \mbox{Measuring point*} & \mbox{D} = 1 \mbox{ mm} \\ \mbox{Measuring distance*} & \mbox{4.7 mm} \\ \end{array}$

* standard values

Cleanliness

Measuring range 0...100 % Resolution 0.1 %

Layer thickness

Measuring range user-defined

Power supply

Mains adapter / USB 100...240 / 5V Li-lon battery 3.6 V / 1,950 mAh

min. 8 h operating time

Power consumption 2.5 W max.

Interface, memory, dimension, weight

USB-interface data transfer
Display LCD, illuminated

Measuring profiles 254

Memory 8,000 measuring

values per profile

Dimensions (HxWxD)

Hand-held device 129x82x48 mm Sensor head 95x50x30 mm

Weight (device) 530 g

Windows-Software SITA-ProcessLog (optional)

- Guided part inspection and graphical display of measuring points on part surfaces
- Documentation and evaluation of the part cleanliness
- Administration and analysis of saved measuring values
- Quick and easy preparation of test reports
- Controlling the measurement via PC
- Simple generation and administration of measuring profiles

Contact

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