

SITA

Contact-free cleanliness inspection
of part surfaces by fluorescence
measurement



SITA *CleanoSpector*

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

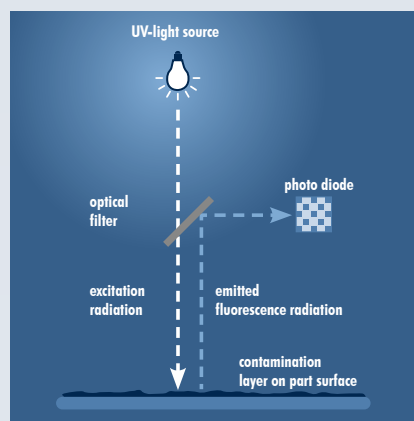
- Contact-free cleanliness inspection of metal part surfaces at the push of one button
- Quality assurance of industrial cleaning processes
- Layer thickness measurement e.g. of corrosion protection oil and primer



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 technology
- 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 |
| Detection* | 460 nm |
| Measuring point* | D = 1 mm |
| Measuring distance* | 4.7 mm |

* 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-Ion 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

SITA Messtechnik GmbH
Gostritzer Straße 63
01217 Dresden
Germany

Tel.: +49 (0)351 8 71 8041
Fax: +49 (0)351 8 71 8464
info@sita-process.com
www.sita-process.com