



MicroQuick

Ultra-Fast Particle Scanner for
Parts Cleanliness Testing



Fast and Easy to Use
Robust and Maintenance-Free
VDA-19 Approved and Compliant

made by

RJL *Micro* & Analytic

www.particle-scanner.com

About MicroQuick

Fast and Easy to Use

- filter analysis in 2.5 minutes plus reporting
- front-end implemented in Microsoft Excel™

Absolute Robust

- robust consumer technology scanner
- no warranty case within 7 years

Zero Maintenance

- self-calibration routine to be done by user
- automated audit report generation

VDA-19 & ISO-16232

Our MicroQuick particle scanner was compared with various light microscopes and qualified positively in the round robin tests of the working groups VDA-19 and ISO-16232.

Consequently, the scanner technology is considered equal and approved for standard analysis according to VDA-19 (2015) and ISO-16232 (2018).

VDA | Verband der
Automobilindustrie

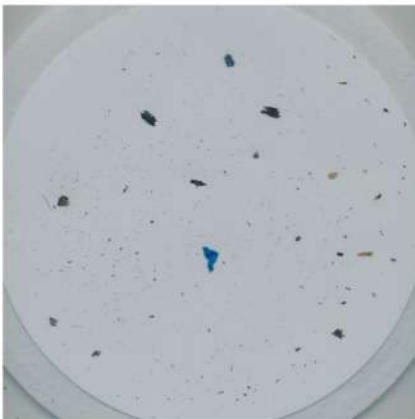
19

Quality Management
in the Automotive Industry

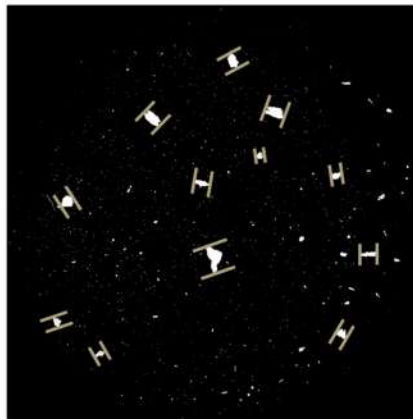
Inspection of Technical Cleanliness
– Particulate Contamination of Functionally-
Relevant Automotive Components

Three Simple Steps

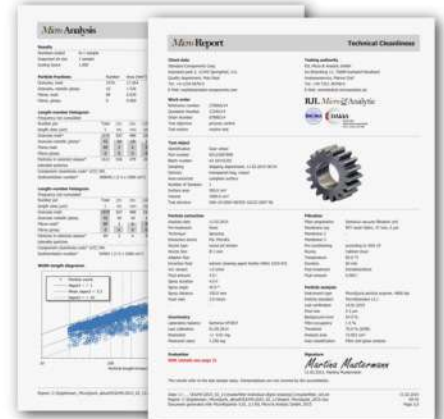
① Scan



② Analysis



③ Report



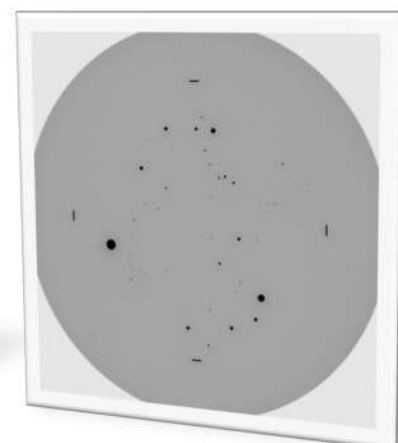
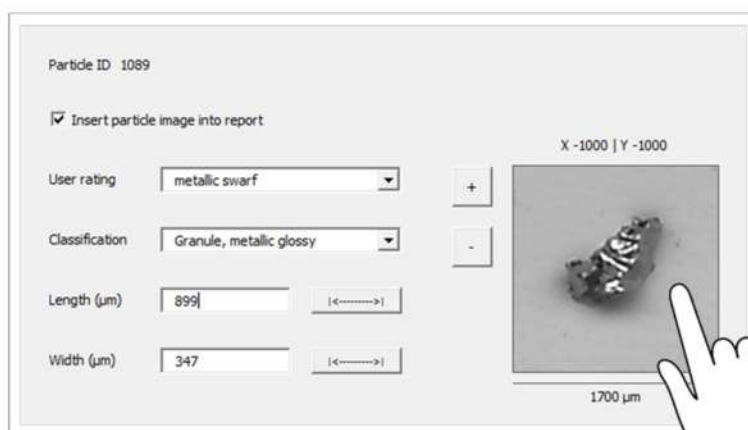
Included Features

MicroEditor

- manual refinishing (separation and stitching of particles)
- re-classification of particles (fibres, metallic glossy)
- length and width measure check, user rating per particle

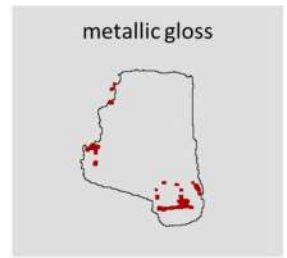
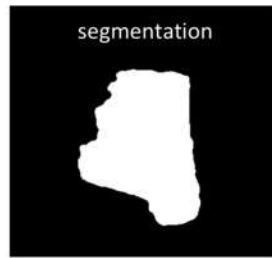
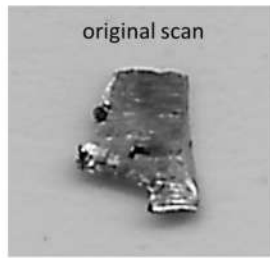
MicroStandard

- 70 particles, size range 25-1000 μm
- 100 % detection rate guaranteed
- automated re-calibration, reports



Metallic Gloss Detection

- fully automatic recognition of metallic reflective particles
- flat bed scanner equipped with unique optical filter for superior detection of metallic gloss
- RJL Micro & Analytic GmbH proprietary technology, patent pending



New MicroReporter Series 5

Micro Report Technical Cleanliness

Client data
Standard Components Corp.
Industrial park 3, 12345 Springfield, U.K.
Quality department, Pete Heat
Tel: +0-1234-5678-0
E-Mail: neat@standard-components.com

Testing authority
RJL Micro & Analytic GmbH
Im Entenfang 11, 76689 Karlsruhe-Neuhard
Analysenservice, Marion Graf
Tel: +49-7251-36790-0
E-Mail: zentrale@rjl-microanalytic.de

Work order
Reference number: 270004714
Quotation Number: 12345/14
Order Number: 67890/14
Test objective:
Test motive:

RJL Micro & Analytic
ISO 9001 DAKKS

Header

wizard to fill-in information related to client, test object, method, parameters of extraction, filtration and instrumentation

Micro Analysis Technical Cleanliness

Results

Numbers scaled	to 1 sample
Inspected lot size	1 sample
Scaling factor	1.000

Summary results

Measured	Tolerable
Particle mass (mg)	1.250
Total fibre length (mm)	36.735
Total fibre elongation (mm)	43.684

Particle fractions

	Number	Area (mm ²)	Mass share estimated (mg)	Longest particle (µm)
Granules, matt	1570	17.264	1.093	2214 x 1348
Granules, metallic glossy	42	1.536	0.097	1428 x 274
Fibres, matt	89	0.935	0.059	1996 x 19
Fibres, glossy	0	0.000	0.000	-

Length-number histogram

Frequency not cumulated	Total	(25)	(50)	(100)	(150)	(200)	(400)	(600)	(1000)	(1500)	(2000)	(3000)	...
Granules matt*	1570	527	469	218	135	172	33	13	1	1	1	1	0
Granules metallic glossy*	42	19	10	1	1	3	3	3	2	0	0	0	0
Fibres matt	89	3	6	9	8	29	16	11	5	2	0	0	0
Fibres glossy	0	0	0	0	0	0	0	0	0	0	0	0	0
Particles in selected classes*	1612	546	479	219	136	175	36	16	3	1	1	1	0
tolerable particles													
Component cleanliness							20	0	0	0	0	0	0

Results

- total particle mass and estimated per class
- two histograms, user-defined length, width, area
- selectable ISO or user-defined size bins
- component cleanliness code (CCC)
- sedimentation number for ambient monitoring
- possibility to project numbers to specific lot size
- length-width point diagram

Micro Gallery Technical Cleanliness

Sample name: Kupplungsgehäuse

1) Filter membrane

2) Granule, matt (biggest particle)
Length 2214 µm, Width 1348 µm

3) Fibres, matt
Length 1996 µm, Width 26 µm

4) Granule, matt
Length 1489 µm, Width 917 µm

5) Granule, metallic glossy
Length 1428 µm, Width 274 µm

6) Fibres, matt
Length 1174 µm, Width 26 µm

7) Granule, metallic glossy
Length 1005 µm, Width 395 µm

8) Granule, matt
Length 997 µm, Width 637 µm

9) Granule, metallic glossy
Length 785 µm, Width 490 µm

10) Granule, metallic glossy
Length 713 µm, Width 421 µm

Report: C:\Ergebnisse\MicroQuick_aktuell\RJLMA\2015_02_11\Report_MicroQuick_2015.xlsx

Gallery

- all images in colour
- filter overview image
- map for re-localisation of displayed particles on membrane
- up to 100 particle micro snapshots displayed at once
- user-defined sorting by length, width, area, etc.
- each particle can be refinished by means of MicroEditor
- selectable contrast enhancement
- particle zoom function

Further Reports

- single page report
- extraction curve validation
- cleanliness trend tool
- scanner audit report
- VDA-19 conformity check

MicroQuick Accessories

MicroMag

mini microscope with 50x and 200x for slide mount navigation



MicroTrap

particle monitor for ambient cleanliness analysis suitable for MicroQuick



MicroStamp

stamping tool to strip off contaminant particles directly from dedicated surfaces



MicroEx

set of laboratory equipment for wet extraction of residual contamination from automotive parts



Multiscanner

Automated sequential residual contaminant analysis, up to 6 samples

Suitable for

- Filter membranes
- MicroTraps
- MicroStamps



World-Wide Customer Base



RJL Micro & Analytic GmbH
Im Entenfang 11
76689 Karlsdorf-Neuthard
Germany / Deutschland

www.rjl-microanalytic.com
sales@rjl-microanalytic.com
phone: +49-7251-36790-0
fax: +49-7251-36790-79

Sales representative