



Cleanliness

ParticleView 5



Particle Analysis Conforming to: ISO16232, VDA19.1, ISO4406 as well as customer specific standards



Quick - User friendly - Accurate



Features:

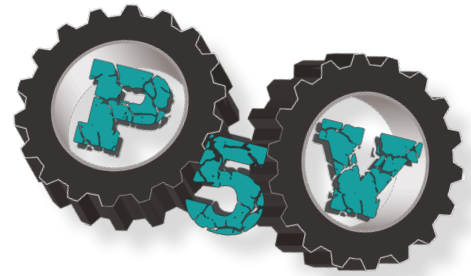
- Conforms to: ISO16232, VDA19.1, ISO4406 as well as customer specific standards.
- Preset or order templates
- Autofocus for every image improves accuracy
- Reflective mode for detecting metallic particles
- Analyze filters from 25-90mm
- Standard templates or custom reports
- Tech support remotely with screen sharing

Benefits:

- Analyze in less then 2min (47mm filter)
- Fast automatic settings for light & threshold values
- List of templates for different standards

Available Systems:

- ParticleView HR (Particle analyzis from 2,5µm)
- ParticleView PA (Particle analyzis from 15µm)
- ParticleView Lite (Particle analyzis from 20µm)



All shiny things are not valued as gold



What is the composition of the particle?

Technical Cleanliness

Industry focus on sustainability means new components are designed with advanced functions sensitive to harmful particles.

The need for controlling particle cleanliness in the manufacturing process are now mandatory for many components in the industry.



When was the particle created?



How harmful is the particle?

Particle Analysis

Normally made in two steps;

1. Extraction of particles from component
2. Gravimetric measurement or analysis by a particle counting microscope

The particle extraction is normally performed in a controlled environment with an extraction unit designed for the component and a validated method according to specified standard.

Reporting in ParticleView



Report no: PV4.1-002 09-jun-22



Page 1/6

Cleanliness Report

General:

Analysis performed by: Nyli Metrology AB

Operator: Joakim Thorn

Contact: joakim@nyli.se

Phone no.: 0522 - 646 644

Order no.: 7053

Customer/Component:

Customer: aaaaaa

Customer contact: bbbbbb

Component: Cooler

Part number: cccccc

No.analyzed: 1

Extraction:

Procedure: Agitation

Extraction Fluid: G60

Fluid temp: 55-60°C

Fluid Conc: 2,5%

Test volume: 550

Fluid Analyzed: 100%

Fluid Pressure/flow rate: 1,5 LPM

Rinsing Nozzle: 2,5 mm

Filter type: 0,65 µm filters.

Filter size: 47mm

Extraction performed by: Nyli Metrology AB

Extraction is not included in the accreditation

Comments:

Analysis:

Analysis system: LV150 (id.:14-019. 14-020)

Software: Particleview 4

Analysis Method: QL-004-10 Edition 3:2020

Reference stage: id.: 371

Digital image res.: 1,3685

Filter area analyzed: 100%.

Gray Value: 55% (±5%)

1*) Threshold Value: 75 (53%)

Requirement documentation:

Standard doc.: ISO16232

Wetted Area:(cm2) 12065

G-number: 1

Cleanliness req.:

CCC=A B17/C E14/F-110/I2)

CCC-N (K2)

Proving
ISO/IEC 17025

Particle count data and component cleanliness code

Size class [µm]	B	C+E	F+I	J	K+N						
Requirement ISO-Class	17	14	10	2	2(N)						
Non-reflective	81944	36999	173	0	1						
Soft Fibre	0	2	17	5	2						
Reflective	455	7262	277	0	3						
Concentration	6830	3669	37	0	0,3						
ISO Code	13	12	6	00	0						

Blank Code

640000

Largest particle (blank test)

248 µm

Largest non-reflective:

4278 µm

Largest soft fibre:

1515 µm

Largest reflective:

2874 µm

Non-Reflective



L:4278µm W:927µm

Reflective



L:2874µm W:467µm

Soft fibre



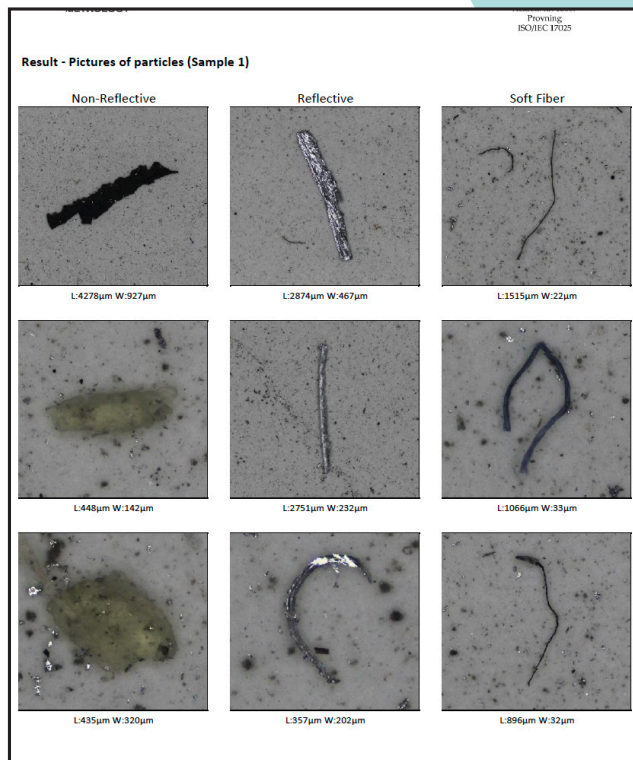
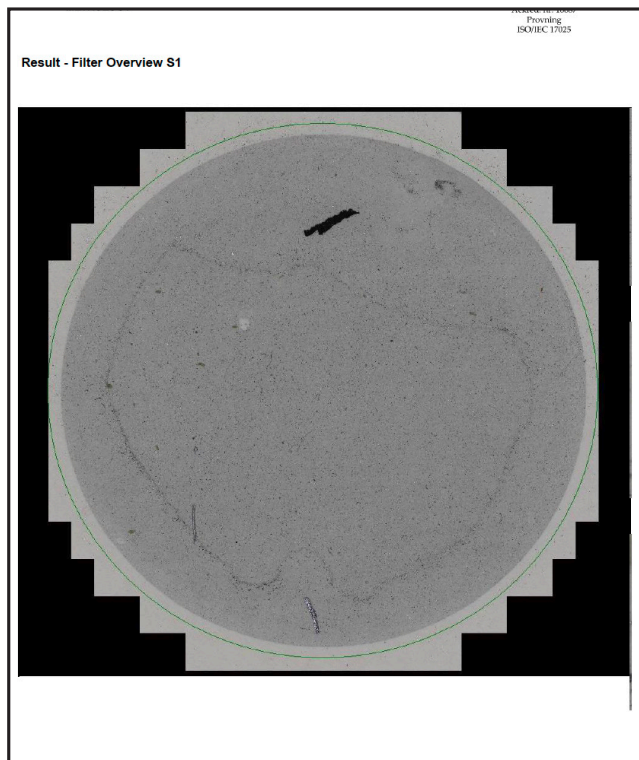
L:1515µm W:22µm

Remarks/comments:

No comments.

Particle sizes smaller than 15µm is not included in the accreditation.

TEST SUMMARY:





Akkred. nr. 10087
Provning
ISO/IEC 17025

**Scandinavia's first and only laboratory with accredited
particle counting according to ISO 17025**

Why choose NYLI

- Design, development, production, assembly and quality control, it is done by Nyli in Sweden.
- Installation, service, training and support by specialized engineers trained by NYLI
- NYLI have an accredited laboratory for particle analysis, working with customers cleanliness specifications daily in our own systems.
- CE and RoHS compatible

Some of Nyli:s References

The Volvo logo, consisting of the word "VOLVO" in a bold, blue, sans-serif font.

Construction Equipment

The Hydra Specma logo, with "Hydra" in a large, black, stylized font and "Specma" in a smaller, yellow, sans-serif font below it.

BOSCH

rexroth

A Bosch Company



MITSUBISHI
TURBOCHARGER

TOYOTA

MATERIAL HANDLING



NYLI Metrology AB
Brunnemyrsvägen 5
451 55 Uddevalla

tel: +46 522 646 646
e-mail: order@nyli.se
hemsida: nyli.se