PoroMetric Software

Fully automated measurements of pores

Phenom PoroMetric
Easy visualisation of statistical pore data

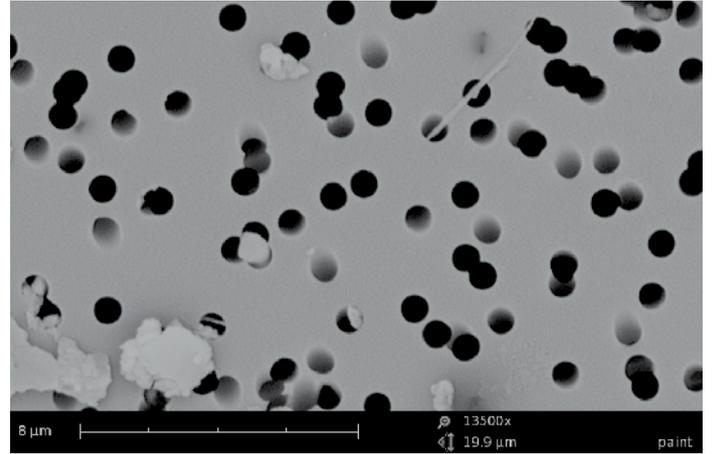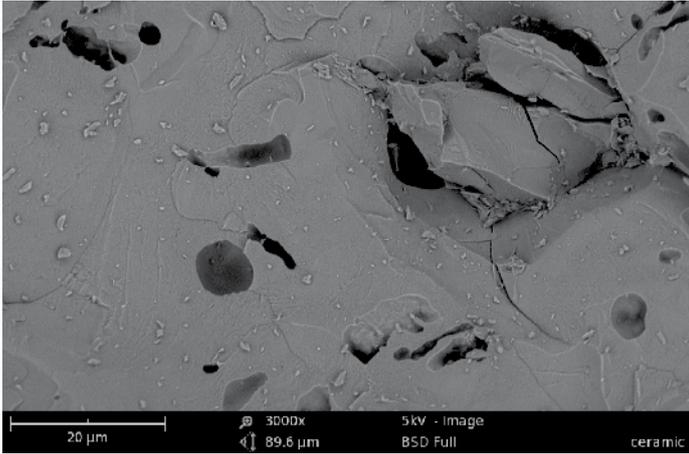### ProSuite
Integrated software in ProSuite

Reporting tool
Easy exporting of data for reporting

Automated measurements
Multiple pore parameters

PHENOMWORLD

The visualization and analysis of pores are easier than ever before with the Phenom desktop SEM and the PoroMetric software. The combination of speed, ease of use and superb imaging quality of the Phenom and image pore analysis software of PoroMetric creates a powerful tool for inspecting a wide range of samples like fi lters and membranes.

PoroMetric Software

The Phenom desktop SEM with PoroMetric software allows easy generation and analysis of SEM images. The integrated PoroMetric software allows the user to gather data on distribution of pores, and pore parameters like pore size and aspect ratio. The fully automated measurements of PoroMetric allow a level of visual exploration beyond optical microscopy that can lead to new discoveries and innovations. The histogram and generated images can be exported in the selected format to be used as a reporting tool. PoroMetric allows the user to get a better understanding of the characteristics of the materials, as it extracts detailed information of the complete set of pores. PoroMetric is the first in its class when it comes to measurements of pores. This results in valuable information on the effects which changing the pore structure has on the porosity and filtration process.

Imaging Specifications

| Pore Analysis		Output	Report in docx format
> Pore size range	100nm – 0,1mm		TIFF image format
> Pore detection speed	Up to 1000 pores per minute		CSV file
> Measured properties	Size, shape, count		Project file (.POME) for offline analysis
Pore Parameters	Area, circle equivalent diameter, aspect ratio, major axis, minor axis and manual measurement	Part of ProSuite	Network storage enabled Phenom integraded system
Graphical Display	Plot graphs of the circle equivalent diameter, SEM images and detected pores		
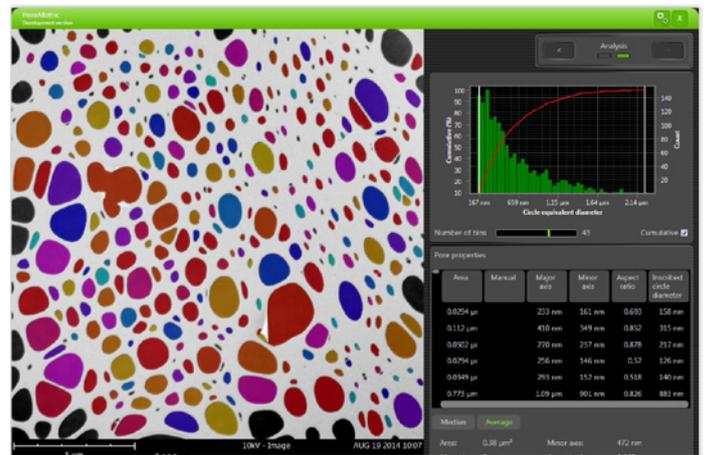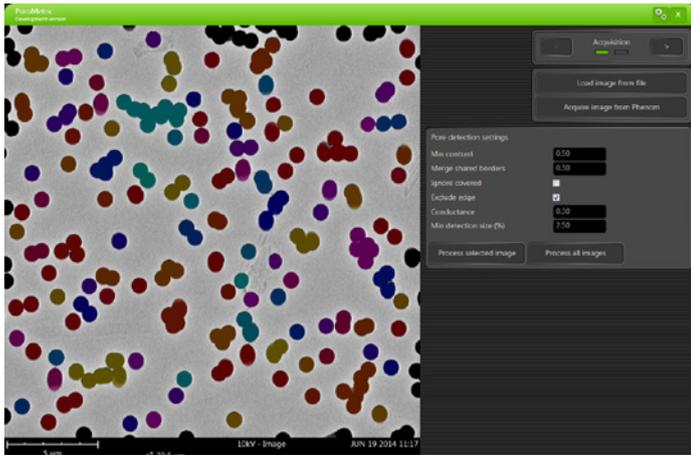
Main advantages of the PoroMetric Software

> Integrated software in ProSuite

> Acquire images directly from the Phenom desktop SEM

> Correlate pore features such as area, aspect ratio, major and minor axis

> Fast and convenient operation improves workfl ow and makes scheduling simple and predictable

> Image collection is limitless as digital fi les are easily stored on a network or USB disk for data sharing, communication, or later reference

> The Phenom's ease of use and ability to operate in any environment means anyone can use it to visually interpret a wide range of samples

> Statistical data with high-quality images.

Markets & Applications

The Phenom desktop SEM and PoroMetric software application are easy to use and allow the user to extract the best results. Companies that will benefit the most from PoroMetric can be found in the:

> Filter- and sieve industry

> Foam industry

> Ceramic industry

> Pharmaceutical industry

> Non woven industryx

ParticleMetric Software

The Phenom desktop SEM with ParticleMetric software allows easy generation and analysis of SEM images. The integrated ParticleMetric software allows the user to gather morphology and particle size data for many submicron particle applications. The fully automated measurements of ParticleMetric allow a level of visual exploration beyond optical microscopy that can lead to new discoveries and innovations in powder design, development, and quality control.

FiberMetric Software

In combination with the Phenom desktop scanning electron microscope (SEM), the FiberMetric application allows you to produce accurate size information from micro and nano fiber samples.

The automated image characterization generates hundreds of measurements in seconds. In addition to more accurate data acquisition, the automated measurements of the FiberMetric application guarantee a fast return on investment (time savings compared to previous manual measurements; operator independent; more consistend data).

With the FiberMetric it has become possible to measure and analyze samples with large fiber diameter differences.

ParticleMetric Specifications

Particle Analysis	Particle size range 100nm – 0,1mm Particle detection speed up to 1000 particles per minute Measured properties: size, shape, count
Particle Parameters	Area, circle equivalent diameter, surface area, circumscribed circle diameter, volume by area, circumference, aspect ratio, circularity, elongation, grayscale, major axis, minor axis, convex hull, gravity centre (x,y), pixel count, convexity.
Graphical Display	Plot graphs in linear log or double log scale, by number or by volume Scatter plots of any given parameter SEM image of individual particle

FiberMetric Specifications

Fiber Detection	40 µm to 100 nm 1 to 1000 measurements per image
Output	XML-data file (incl. diameter measurements and pore surface areas) JPG, TIFF Max. 1024 x 1024 pixel image Customized fiber and pore distribution histogram Minimum, maximum and average fiber size Standard deviation Fiber orientation
Part of the ProSuite	Network storage enabled Phenom integrated system

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