thermoscientific

PRODUCT SPECIFICATIONS

SOFTWARE - Phenom PoroMetric

Phenom PoroMetric Software

Fully automated measurements of pores

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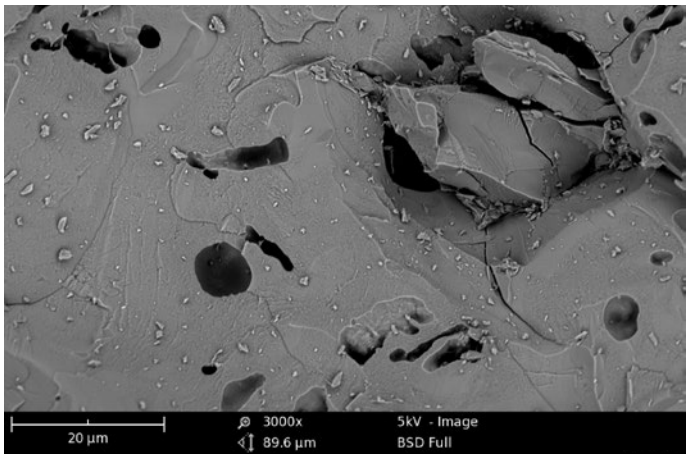
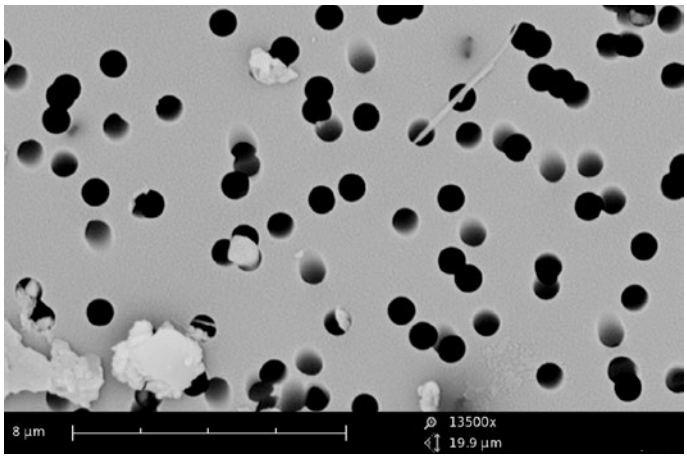


Ceramics



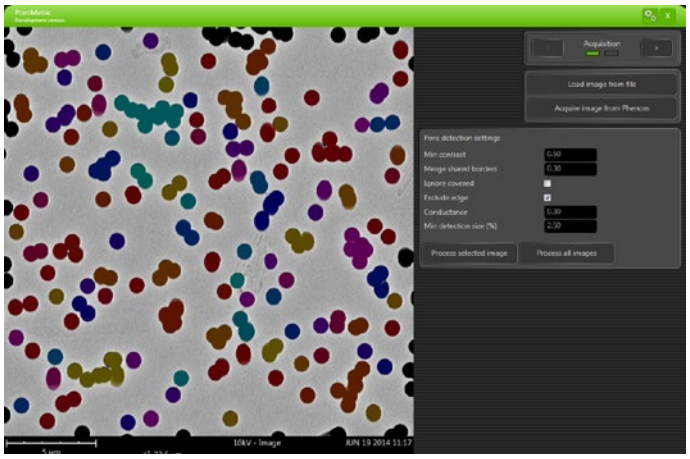
Paint

The visualization and analysis of pores are easier than ever before with the Phenom desktop scanning electron microscope (SEM) and Thermo Scientific™ Phenom 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 filters and membranes.

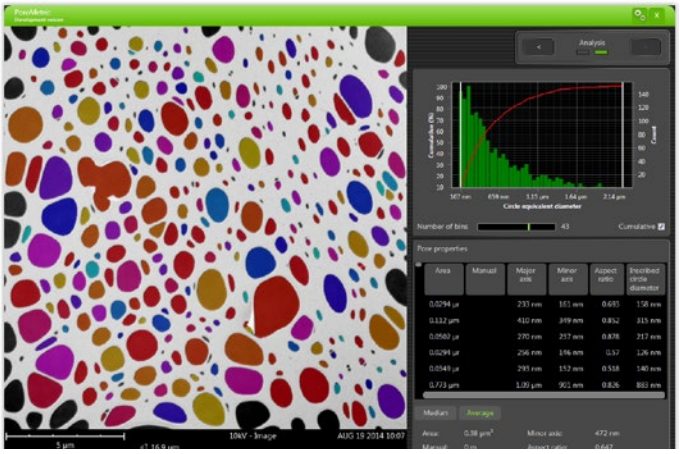
Phenom PoroMetric Software

The Phenom desktop SEM with Phenom PoroMetric software allows easy generation and analysis of SEM images. The integrated Phenom 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 Phenom 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. Phenom 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. Phenom 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	
Pore size range	100 nm - 0,1 mm
Pore detection	8/16 bit image processing
Speed	More than 1000 pores per minute
Measured properties	Size, shape, count
Pore parameters	
Area, circle equivalent diameter, aspect ratio, major axis, minor axis and manual measurement	
Graphical display	
• Plot graphs of the circle equivalent diameter • SEM images and detected pores	
Output	
• Report in docx format • TIFF image format • CSV file • Project file (.POME) for offline analysis	
Part of ProSuite	
• Network storage enabled • Phenom integrated system	



Membrane



Membrane

Main advantages of PoroMetric

- 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 workflow and makes scheduling simple and predictable
- Image collection is limitless as digital files 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.
- Automatically generates a report in docx format
- Ability to revisit detected pores

Markets & Applications

The Phenom desktop SEM and PoroMetric software 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

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Phenom ParticleMetric

Phenom FiberMetric

Phenom ParticleMetric

The Phenom desktop SEM with Phenom ParticleMetric software allows easy generation and analysis of SEM images. The integrated Phenom ParticleMetric software allows the user to gather morphology and particle size data for many submicron particle applications.

The fully automated measurements of Phenom 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.

Phenom FiberMetric

In combination with the Phenom desktop SEM, the Phenom FiberMetric software allows the user 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 Phenom FiberMetric guarantee a fast return on investment.

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

ParticleMetric Specifications	
Particle analysis	
Particle size range	100 nm - 0,1 mm
Particle detection speed	More than 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 images of individual particle	
Part of ProSuite	
• Network storage enabled • Phenom integrated system	
FiberMetric Specifications	
Fiber detection	
• 100 nm to 40 µm • 1 to 1000 measurements per image	
Part of ProSuite	
• Network storage enabled • Phenom integrated system	

Find out more at **thermofisher.com/phenomworld**

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