Phenom FiberMetric Software

Faster, more accurate fiber analyses

Thermo Scientific™ Phenom™ FiberMetric Software makes it quick and easy to directly observe and measure microfibers and nanofibers. In combination with a Thermo Scientific Phenom Desktop SEM, the software helps you measure and analyze complicated fiber structures from spunbound, electrospun, and meltblown fibers.

Using imaging data from a Phenom Desktop SEM, FiberMetric Software automates characterization. First, it automatically generates hundreds of measurements in seconds using algorithms that deliver accurate, reliable data—even for samples with large differences in fiber diameter. Then it analyzes those data points to provide complete statistical analysis. The data is displayed in an interactive histogram showing the distribution of fiber and pore size. This histogram and all the data can be exported in a variety of formats, or you can create a screenshot to use in reports and presentations.

By automating measurement and analysis, FiberMetric Software saves time and delivers more consistent data. You no longer have to spend time manually measuring features, and you don't have to worry about differences between operators.

FiberMetric Software can analyze fibers between 50 nm and 50 μ m, making it useful for a wide range of applications. From investigating filtration materials to analyzing diaper paddings and much more, FiberMetric Software generates all the statistical data you need.

Key features

Saves time and reduces human error by automating measurements

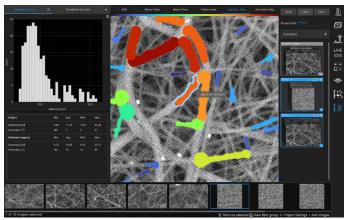
Quickly and automatically collects all statistical data

Measures a large range of fibers and pores

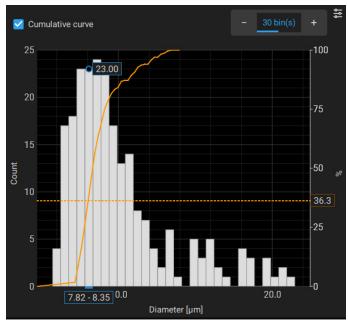
Exports all data either statistically or as a raw data file

Accurately views and measures microfibers and nanofibers

Displays data in real time



Automatically measure fibers with a click.



Measurements are displayed in the customizable histogram.



Imaging specifications

Fiber detection

- 50 nm to 50 μm
- 1 to 1,000 measurements per image

Output

- XML data file (including diameter measurements and pore surface areas)
- JPG, TIFF (maximum image resolution: 1,024 x 1,024 pixels)
- Customized fiber and pore distribution histogram
- Minimum, maximum, and average fiber size
- Standard deviation
- Fiber orientation

Part of ProSuite

- Network storage enabled
- · Integrated with Phenom SEMs

Extend your analysis with ParticleMetric and PoroMetric Software

In addition to FiberMetric Software, Thermo Scientific ParticleMetric and PoroMetric Software can help you learn more about your samples.

ParticleMetric Software helps you gather morphology and particle size data for many submicron particle applications. Its fully automated measurements help you explore details too small for optical microscopy to support powder design, development, and quality control.

PoroMetric Software extracts detailed information from a complete set of pores to help you analyze pore distribution, size, and aspect ratio and better understand material characteristics.

ParticleMetric Software

Particle analysis

Size range: 100 nm to 0.1 mm

Detection speed: Up to 1,000 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 center (x, y), pixel count, convexity

Graphical display

- Plot graphs in linear log or double log scale by number or volume
- · Scatter plots of any given parameter
- · SEM image of individual particle

Output

- DOCX
- TIFF
- CSV
- POME

Part of ProSuite

- Network storage enabled
- Integrated with Phenom SEMs

PoroMetric Software

Pore analysis

- Size range: 100 nm to 0.1 mm
- Detection speed: Up to 1,000 pores per minute
- · Measure properties: size, shape, count

Pore parameters

Area, circle-equivalent diameter, aspect ratio, major axis, minor axis, manual measurement

Graphical display

- Plot graphs of the circle-equivalent diameter
- SEM images and detected pores

Output

- DOCX
- TIFF
- CSV
- POME

Part of ProSuite

- Network storage enabled
- Integrated with Phenom SEMs



Learn more at thermofisher.com/phenom

