



ENTEK

RAISING EXPECTATIONS.
KEEPING THEM THERE.

ENTEK Industrial Separators



OVERDELIVERING. OUTPERFORMING. TWO OF OUR MOST NOTABLE RESULTS.

ENTEK's world-class battery separators add power and reliability to your heavy duty batteries. Our best-in-class technology and unmatched customization give you maximum control over performance.

Six Ways to Customize.

With multiple ways to customize our industrial separators, you can get exactly what you want, exactly how you want it.

Process and Materials: ENTEK produces industrial separators using the same proven technology and quality systems we use for OEM and after-market Starting, Lighting, and Ignition (SLI) separators. The silica, UHMWPE, and other raw materials have been qualified for both industrial and SLI applications. ENTEK's expertise and consistency ensure that our industrial separators will exceed your requirements in the toughest applications.

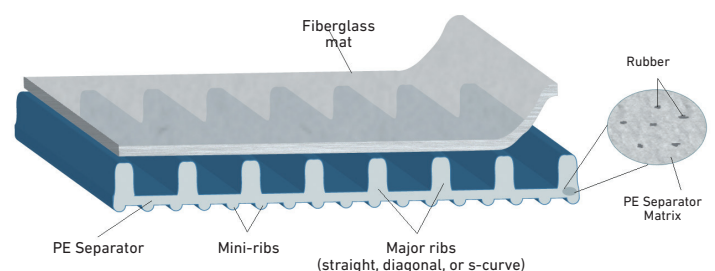
Antimony Suppression: ENTEK industrial separators can have non-porous rubber powder distributed throughout their bulk structure, which is particularly helpful in Pb-acid batteries using Sb-containing grids. The percent of rubber can be customized to fit your battery's performance goals.

Rib Pattern: There are three different rib patterns to choose from: straight, diagonal or S-rib.

Glass Layer: Available with or without glass mat.

Mini Ribs: ENTEK industrial separators are available with or without mini ribs on the back.

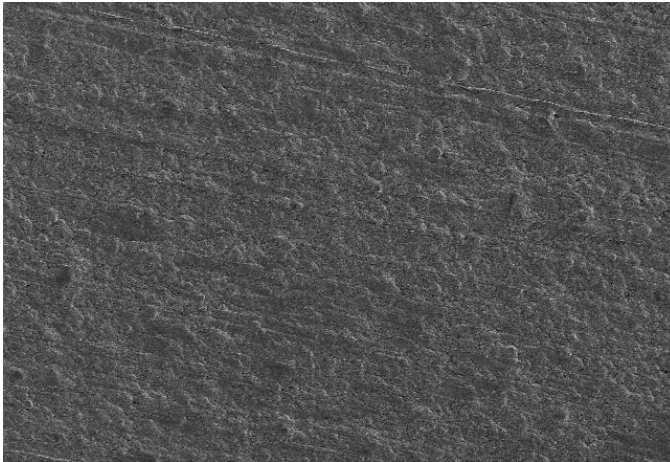
Form Factor: Have us deliver ENTEK industrial separators already cut-to-size, or in roll stock.



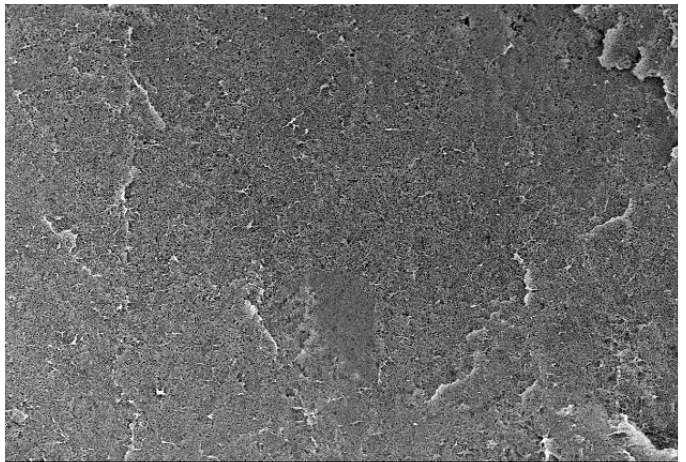
Key Characteristics	Unit	Typical Values or Performance
Overall thickness	mm	1.0 - 3.4
Backweb thickness	mm	.25 - .64
Rib design		Straight, Diagonal, S-rib
Electrical resistance	mΩ-cm ²	150 - 250
Total oil content	%	19 - 26
Backweb oil content	%	14 - 18
Elongation (CMD)	%	400 - 600
Oxidation resistance		Excellent
Porosity	%	52 - 58
Crosslinked rubber powder*	%	0 - 100

* As % of UHMWPE in formulation; value is customer and application specific

STANDARD INDUSTRIAL SEPARATOR

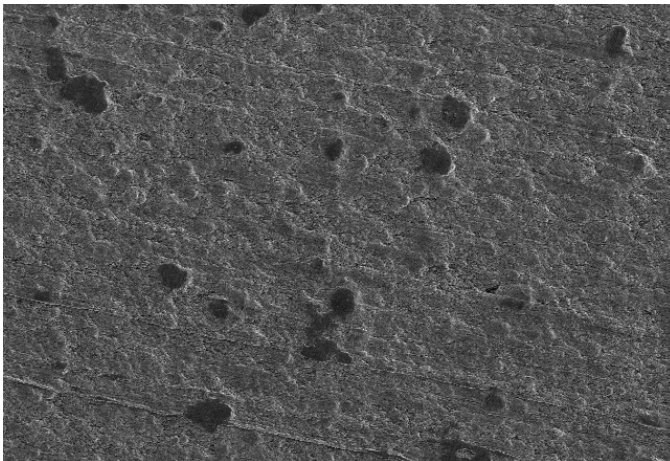


Surface SEM of the separator.

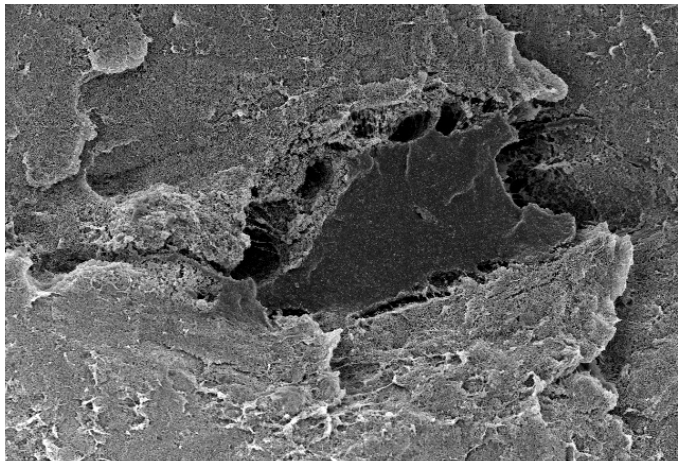


Fracture SEM showing ultrafine pore size of the separator.

RUBBER-CONTAINING INDUSTRIAL SEPARATOR



Surface SEM of the separator with rubber particles observed as dark spots.



Fracture SEM showing a rubber particle embedded within the separator.

ENTEK'S commitment to innovation in battery separator technology and extruders keeps production lines humming around the globe. But it's our customer service that's fueled our rapid expansion. For over 30 years, we've helped customers exceed their business objectives. How can we help you?

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