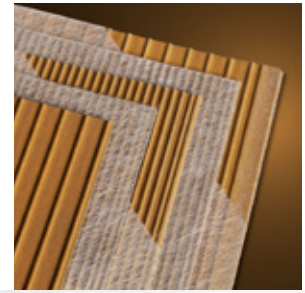




MICROPOROUS™

Proven. Partner. Focus.



Ace-Sil®

When Early Failure is Not an Option, Turn to Ace-Sil®

With a life expectancy of up to 20+ years, Ace-Sil® is ideal for backup power applications used in telecommunications infrastructure, nuclear power plants and military facilities.

In use since 1934, Ace-Sil® is the only battery separator qualified by the U.S. Federal Energy Regulatory Commission (FERC) for use in certain nuclear applications.

Description:

Ace-Sil® is formulated from natural rubber, amorphous silica, sulfur and other minor ingredients. Sulfur vulcanized to hard rubber form, Ace-Sil® is commonly utilized in float or standby applications for flooded lead acid batteries with life expectancies of 20+ years (depending on battery design).

Advantages:

- Excellent recharge characteristics
- Improved battery cyclability
- No oil
- High level of reliability
- Heavy-duty, deep-cycle applications
- Long and reliable backup power

Features:

- Several profiles (major rib designs) available
- Available in leaf form only
- With or without glass mat



Ace-Sil® Separator Properties	
Backweb Thickness (µm)	700
Electrical Resistance (mΩ·cm ²)	340
Volume Porosity (%)	55
Total Oil Content (%)	0

Ace-Sil®

Ace-Sil® is the classic microporous hard rubber separator that has been the industry's leading premium quality separator for nearly 80 years! It is the best for industrial batteries such as STATIONARY, MOTIVE POWER and UPS or STANDBY POWER.

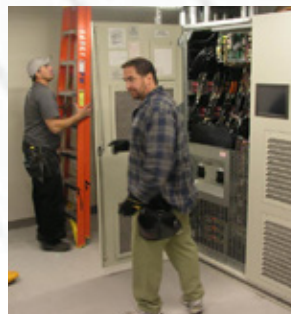
The basic technology of combining processed rubber with silica and then calendaring and vulcanizing this compound into a separator material with a uniform pore structure hasn't changed much during this period but there have been steady and constant refinements and improvements to the manufacturing processes themselves. In addition, there has been consistent upgrading of product uniformity due to the monitoring and control of these processes.

Process refinements have enabled patterns and thinner backwebs that both lower electrical resistance and improve electrolyte mobility. Outstanding and permanent wettability gives low resistance instantly upon exposure to even higher gravity electrolytes. Ace-Sil® separators offer superior physical characteristics for extended life.

- Resists chemical and oxidation deterioration including high-gravity acid
- Can stand up to severe abrasion, vibration and buckling; are not damaged by overcharging
- Remain dimensionally stable under varying temperature
- Will not warp or split and can be readily rewet
- Maintain compressive strength, will not lose porosity or increase electrical resistance with plate growth
- Retard the transfer of antimony and the growth of dendrites (the phenomenon known as treeing.) This is of importance when constructing long-life cells
- Heat resistant and the ability to withstand high-gravity acids make Ace-Sil® ideal for use in premium "dry-charged" batteries

Key Applications:

- UPS
- Nuclear and conventional power plants
- Military
- Reserve power
- Emergency backup power
- Telecommunications
- Inverter power
- Specialty - mining and railroad



Microporous is a leading, dedicated and highly specialized manufacturer of battery separators for flooded lead acid batteries.