

## Industrial Alkaline Separator (AL-200)

Catlog Number: FCEM-0014

### • Description

A porous composite membrane used in industrial alkaline water electrolyzers, featuring high bubble point pressure and low ohmic resistance.

### • Basic Information

Polymer/Material Base: PPS / Zirconia

Ion Exchange Capacity (IEC): N/A

Ionic Conductivity (S/cm): 0.15 - 0.25 (30% KOH)

Thickness ( $\mu\text{m}$ ): 450 - 550

Tensile Strength (MPa): 15 - 25

Elongation at Break (%): 20 - 40

Water Uptake (%): 45 - 60

Swelling Ratio (%): < 2

Max Operating Temp ( $^{\circ}\text{C}$ ): 110

Chemical Stability (Fenton's Test): 30% KOH Stable

Density ( $\text{g}/\text{cm}^3$ ): 1.8

Ash Content (%): < 0.50

Volatile Content (%): < 2.0

EW (Equivalent Weight): N/A

Glass Transition Temp ( $T_g$ ): 280

Storage Humidity (%): 30 - 80

Storage Temp ( $^{\circ}\text{C}$ ): 10 - 40

Solubility in Polar Solvents: Insoluble

Ionic Resistance ( $\Omega\text{-cm}^2$ ): 0.3

Dimensional Stability (%): < 2

Thermal Stability (TGA): > 350 $^{\circ}\text{C}$

Flammability Rating: V-0

Surface Roughness ( $R_a$ ): < 1.5  $\mu\text{m}$

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