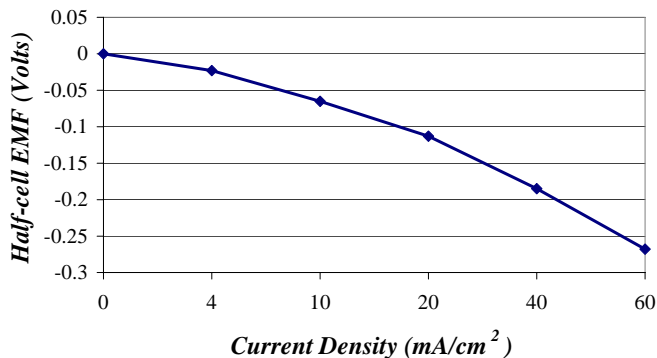


# ALUPOWER

## AC51 Technical Data Sheet

- Product Name:** Air Cathode
- Applications:** A general-purpose manganese catalyzed air cathode designed for use in saline electrolytes for metal-air cells.
- Operating Range:** AC51 is used in applications where the current density is typically below 50 milliamps per square centimeter.
- Operating Life:** Life in excess of 1,000 hours has been demonstrated in several applications.
- Thickness:** 0.5 mm (nominal)
- Basis Weight:** 492 grams per square meter (nominal)
- Safety:** AC51 does not contain mercury, cadmium, lead, lithium or other dangerous materials.
- Physical Description:** AC51 is a 4-layer laminate consisting of (a) A current collector of nickel expanded mesh, (b) Two reactive layers, one on each side of the current collector, and (c) A microporous PTFE film on the air side. The product is flexible and strong. It is chemically resistant to a wide range of substances.
- Catalyst:**  $\text{KMnO}_4$
- Dimensions:** AC51 is available in widths up to ten inches and unlimited length.

**Polarization Voltages of Alupower AC51 Cathode**  
12% NaCl; Standard Calomel reference electrode, RT



Current Density mA/cm <sup>2</sup>	Air EMF (Volts)
0	0
4	-0.023
10	-0.065
20	-0.113
40	-0.185
60	-0.268

**ALUPOWER, INC. 82 Mechanic Street – Pawcatuck, CT 06379**

Phone: (860) 599-1100 – Fax: (860) 599-3903

e-mail: [mktgmgr@yardney.com](mailto:mktgmgr@yardney.com)