UES
JEDA ENVIRONMENTAL SOLUTIONS

Product Data Sheet

# Activated Carbon for EDLC Applications

Code: USF

## About the product

USF is an ultra-pure activated carbon derived from coconut shell, produced using advanced activation and purification technologies. Engineered specifically for use in electric double-layer capacitors (EDLCs), it offers rapid charge/discharge response, high energy density, and excellent cycle stability-positioning it as a next-generation electrode material for energy storage applications.

### FEATURES

**Extensive Surface Area and Optimized Microporosity**
BET surface area: 1637.7 $m^2/g$
Average particle size: 6.179 μm
Facilitates fast ion/electron mobility for high-efficiency charge storage.

**Outstanding Capacitance Performance**
Specific capacitance: 124 F/g @ 2.5 V
Volumetric capacitance: 68 F/cc @ 2.5 V
Enables compact, high-capacity energy storage designs.

**Ultra-High Purity**
Trace metals and residuals are rigorously removed.
Ash content: 0.1%
Moisture loss: 5.1%
Ensures enhanced reliability and safe long-term use.

**Consistent Quality Assurance**
Strict manufacturing controls deliver uniform particle quality and batch-to-batch reproducibility.

### PRODUCT PROPERTIES

| | | | |
|---|---|---|---|
| 1 | Shape | – | Powder |
| 2 | Material | – | Coconut shell |
| 3 | Activation Method | – | Steam Activation |
| 4 | Catalyst | – | - |
| 5 | Iodine number | mg/g | 1,400 < |
| 6 | Moisture content | % | 10> |
| 7 | Total ash content | % | 1 > |
| 8 | Surface area | m2/g | ca.1,500 |
| 9 | Pore volume | cm3/g | ca.0.518 |
| 10 | Apparent density | g/cc | ca. 0.50 |
| 11 | pH | – | 7-9 |
| 12 | Particle size | μm | ave.5 |

### APPLICATION

**EDLC Electrodes**
Suitable for both anode and cathode in high-power, long-life supercapacitors.

### HEALTH AND SAFETY

Review all relevant health and safety information be for using this product. For complete health and safety information, refer to the Safety Data Sheets.

### PACKING

Carton



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