

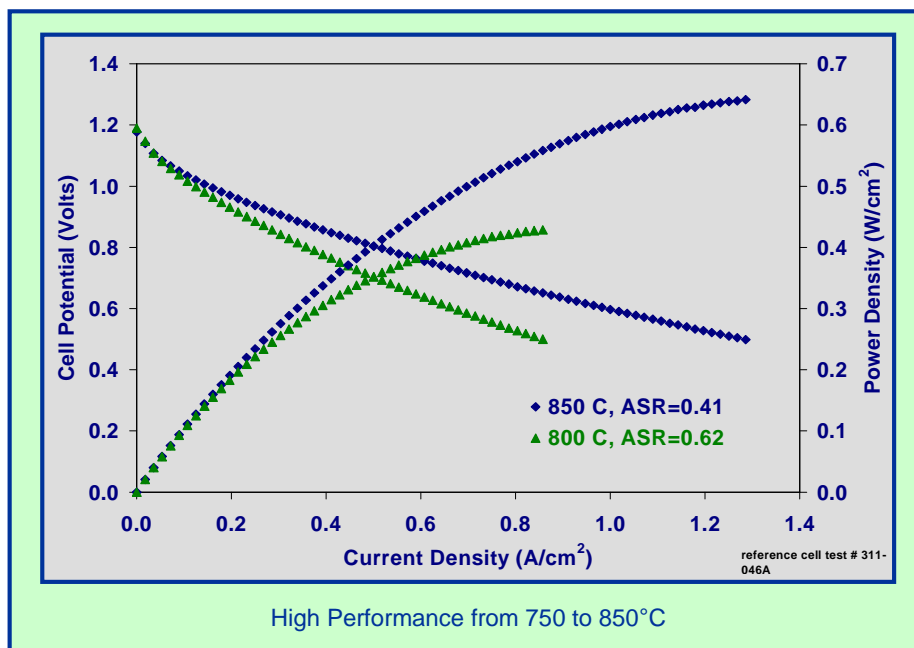
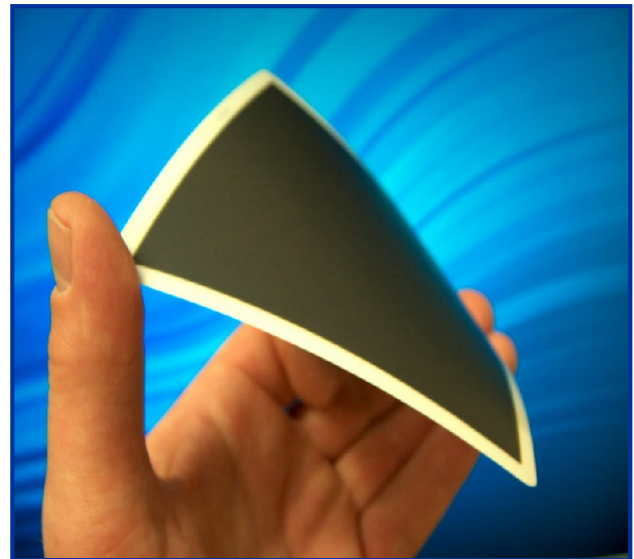


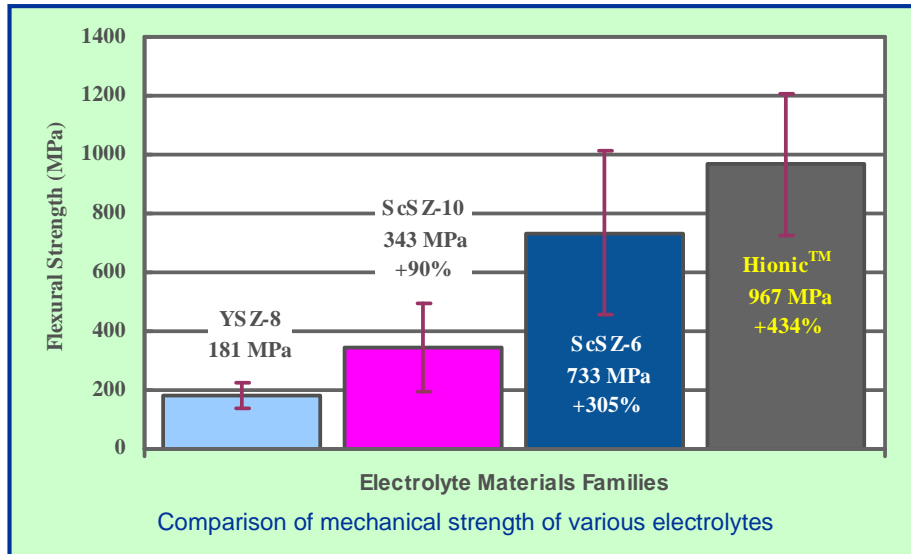
NextCell™ Advanced Electrolyte Planar Cell

The NextCell™ advanced electrolyte supported cell is designed to be used in high temperature SOFC operations, typically 800-900°C. At these temperatures the performance is excellent, with high power densities, high fuel utilizations and ASR under 0.5Ω-cm² at 850°C (0.75Ω-cm² at 800°C). These performance levels are enabled by the use of the strong, thin and conductive Hionic™ substrate along with 50 μm layers of advanced multi-layer composite anodes and cathodes.

Electrolyte supported cells offer many advantages in fuel cell stacks. These include:

- High structural integrity
- Simple sealing
- Anode and cathode flexibility
- High fuel utilization
- Amenable to cyclic operations





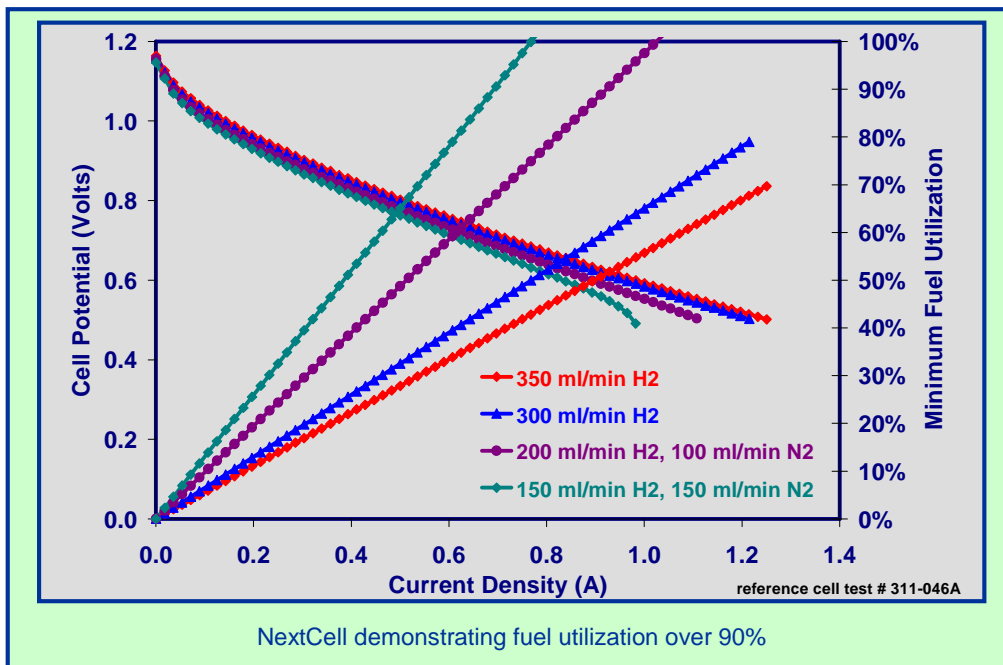
The NextCell uses the patent-pending Hionic™ electrolyte support that is as strong as or stronger than ScSZ-6 electrolytes, with conductivity similar to that of ScSZ-10. The NextCell is more flexible and more rugged in stack assembly and fuel cell operation than comparable high performance cells.

Specifications

- ❑ 120 µm Hionic zirconia-based electrolyte
- ❑ 50 µm Ni-GDC/Ni-YSZ multi-layer anode
- ❑ 50 µm LSM/LSM-GDC multi-layer cathode

Standard Offerings

- ❑ 10 x 10 and 5 x 5 cm² squares
- ❑ 20, 25, 28 and 32 mm diameter button cells
- ❑ Cathode/Hionic or Anode/Hionic bilayer buttons
- ❑ Other sizes and shapes upon request



The values reported on this data sheet are to be considered typical and do not imply essential representation of the product specification. The information contained herein is believed to be accurate and reliable but is presented without guarantee or implied warranty of merchantability or fitness on the part of fuelcellmaterials.com. Further, nothing presented herein should be interpreted as an authorization or inducement to infringe any relevant patent. Under no circumstances shall fuelcellmaterials.com be liable for direct, incidental, consequential or other damages regardless of legal theory, arising out of the use or handling of the product or products referred to herein. The sole remedy of the buyer for any claims shall be limited to the buyer's purchase price. Technical advice is accepted at the buyers risk and is not a warranty.

sales@fuelcellmaterials.com | (614) 842.6606 | fax (614) 842.6607