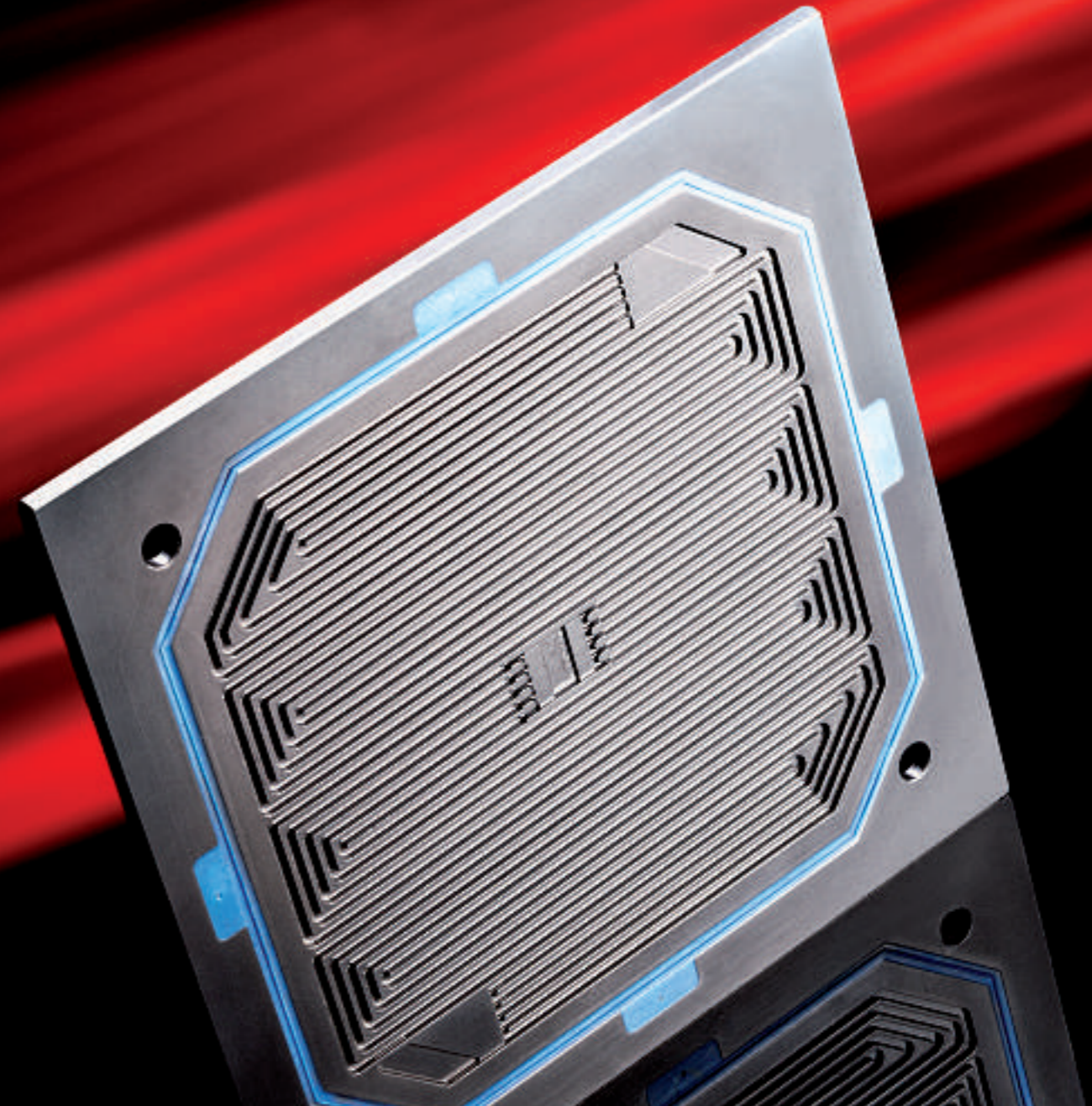


Schunk Bipolar Plates for Fuel Cells



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Molded Graphite Composite Plates for Fuel Cells



Schunk Kohlenstofftechnik GmbH



Reliability

Schunk is your reliable partner on your way to a successful product

Expertise

Schunk has developed and manufactured materials and components made of carbon and graphite for more than 95 years

Innovation

In-house development of material and production technologies allows highly sophisticated solutions

Customized Solutions

Schunk manufactures and delivers plates according to your special needs: blank, machined or molded for larger series

Durability

Schunk bipolar plates have demonstrated their durability in many applications: in direct methanol fuel cells as well as in low- and high-temperature PEFC

Experience

More than 500,000 bipolar plates have been produced by Schunk up to now

Properties of Schunk Grades for PEFC, DMFC and HT-PEFC

	FU 4369	FU 4369HT
Application	Standard grade for machined prototype and molded plates PEM / DMFC	Standard grade for machined prototype and molded plates HT-PEM
Heat deflection temperature	190 °C	210 °C
Glass transition temperature	170 °C	190 °C
Hardness HRB10/40		100
Flexural strength		40 MPa
Density		1.90g · cm ³
Water absorption		0.15%
Minimum web thickness		0.9 mm
Thermal conductivity		55 w/mK

The data shown above are not guaranteed, but typical values based on our experience. It should be understood that a spread of results can occur due to variations in materials and production processes.

Material Technology

Schunk has developed the molding compounds for bipolar plates in-house only by use of top quality raw materials. These components are specially selected and qualified for fuel cell applications backed by Schunk's expertise in carbon and graphite materials. With this compound Schunk manufactures bipolar plates in a highly sophisticated near-net-shape molding process.



Molding Process

Schunk's outstanding molding technology as well as the corresponding tools have been developed in-house based on our extensive material and process know-how. This molding technology is dedicated to producing medium and large quantities. For prototypes we also offer machined plates.

