Celtec®-P membrane electrode assemblies for high-temperature PEM fuel cells





Celtec®-P membrane electrode assemblies

BASF offers a membrane electrode assembly (MEA) for high-temperature PEM fuel cells. This MEA operates at temperatures between 120 and 180 °C and can tolerate large concentrations of carbon monoxide as well as being able to run independently of humidification. This technology enables fuel cell systems to become simpler and more cost effective.

MEA designs

BASF offers standard MEA designs as well as tailored, customized MEAs:

- Celtec[®]-P MEA 45 cm²
- Celtec[®]-P MEA 165 cm²
- Celtec®-P MEA 300 cm²
- Celtec[®]-P MEA 605 cm²



Applications and properties of Celtec®-P MEA

Applications	Why Celtec?
Backup power	Robustness, reformate gas
Combined heat and power	Reformate gas, life time, efficiency
Marine	Robustness, simplified cooling, reformate gas
Aircraft	High power, resiliance, simplified cooling, no water management
Battery range extender	Robustness, reformate gas, simplified cooling, no water management

Performance



hydrogen/air (1.2/2.0) @ 160°C

reformate/air (1.4/5.0) @ 180°C

Test conditions

Single cell 45 cm² No humidification Ambient pressure Steam reformate: 70% H₂, 29% CO₂, 1% CO

High CO tolerance enables simplified purification



Performance is robust against changes in humidification



Want to know more? Please contact us:

Europe

Dr. Carsten Henschel Phone: +49 621 60-47866 Mobile: +49 172 6608868 carsten.henschel@basf-catalystsmetals.com

Americas

Abhishek Yadav Phone: +1 732-205-6784 Mobile: +1 973-219-4445 abhishek.yadav@basf-catalystsmetals.com

Asia

Wenxiao Li Phone: +86 21 6109 1793 Mobile: +86 13764955400 wenxiao.li@basf-catalystsmetals.com

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