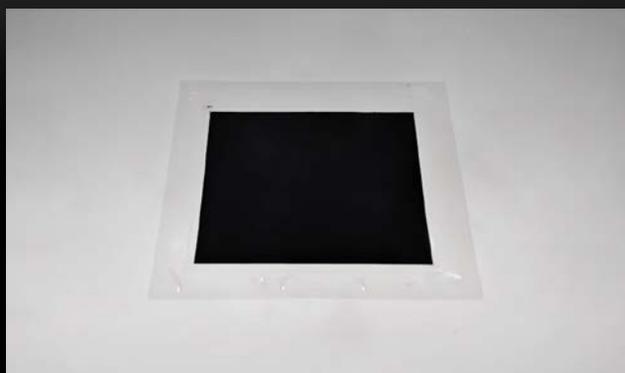
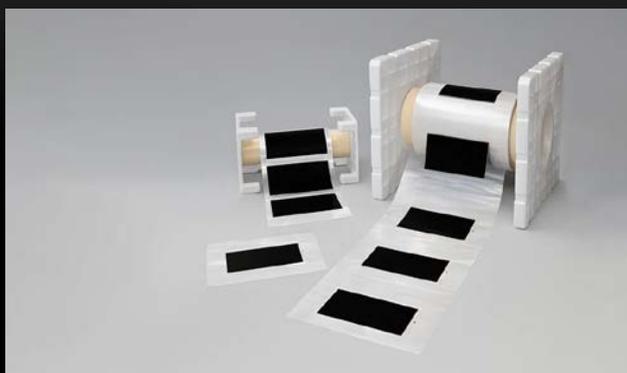
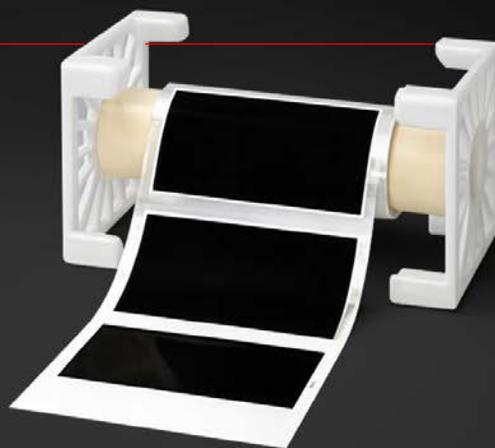


# 3-LAYER MEA

12 µm membrane with outstanding chemical stability, mechanical durability and high performance even in dry conditions.



*Images for illustration purpose only*

EVALUATION CONDITIONS				
Cell temperature		80°C	80°C	80°C
Dew point	An	45°C (RH20%)	77°C (RH88%)	80°C (RH100%)
	Ca	45°C (RH20%)	60°C (RH42%)	80°C (RH100%)
Current Density		0.01 - 3.0A/cm <sup>2</sup>		
Stoichiometry	An (H <sub>2</sub> )	2.0		
	Ca (Air)	2.5		
Pressure	An	50kPaG	50/150kPaG	50kPaG
	Ca	50kPaG	50/150kPaG	50kPaG

*Technical specification is accurate at the time of writing and subject to changes and modifications.*



# BoL Performance (Humidity)

**Pt loading (An/Ca)**

**PEM**

0.05/0.4 mg/cm<sup>2</sup>

12um

## Evaluation Conditions

Cell temp.: 80°C

Pressure: 50/50kPaG

Stoic.: 2.0/2.5

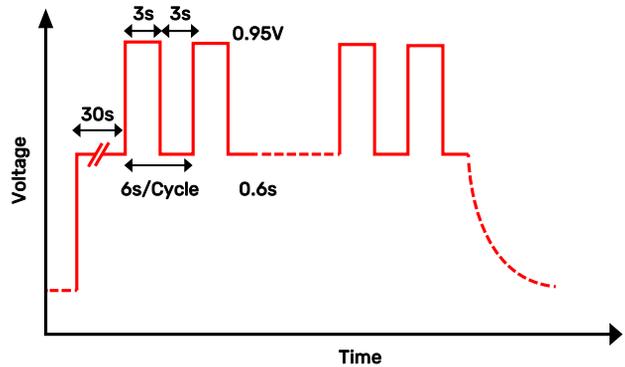
## AST Protocol

Cell temp.: 80°C

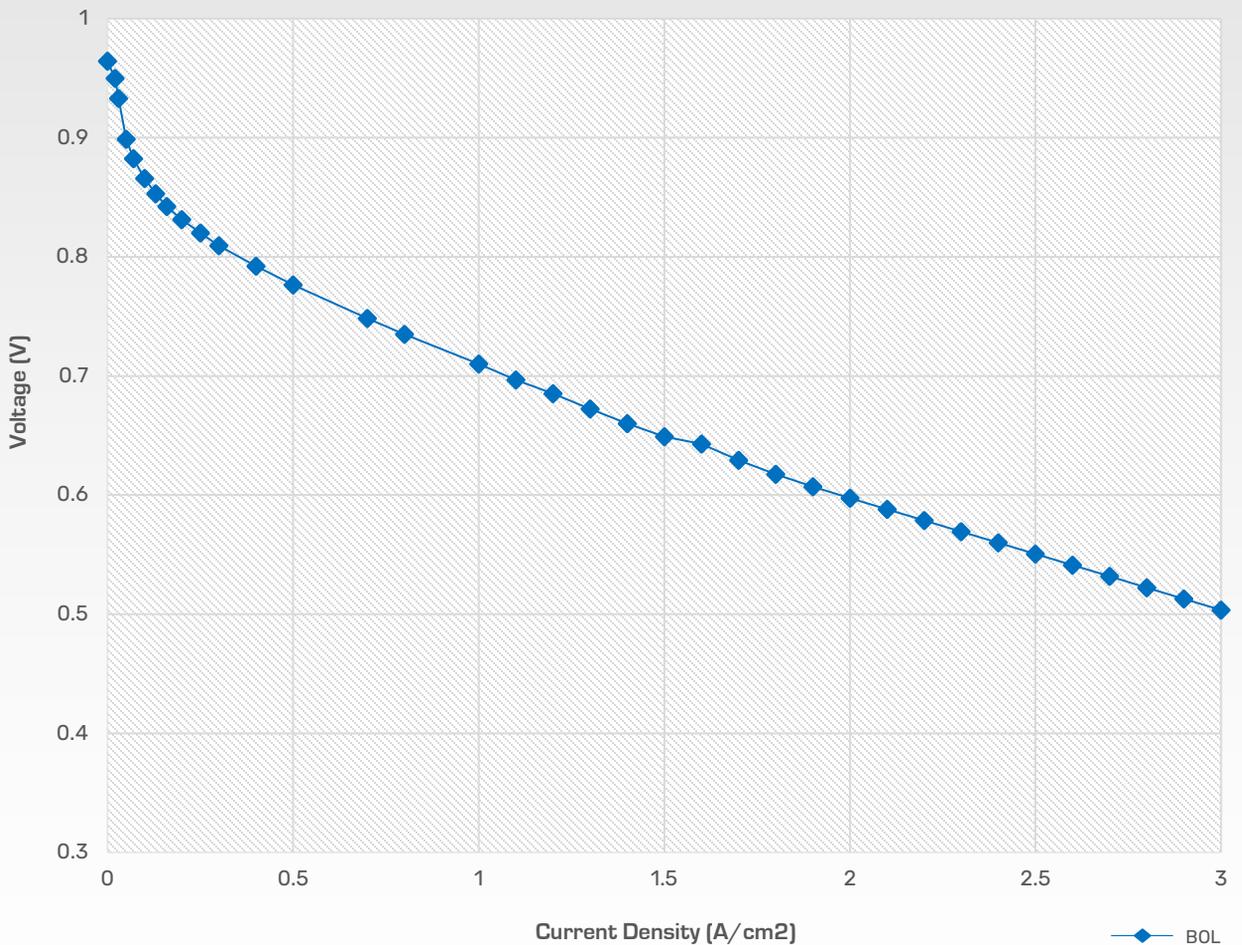
Voltage: 0.6-0.95V

Humidity: 100/100%RH Cycle: 30,000

Pressure: 0/0kPaG



100/100%RH



**Current Density**

**100/100%RH\_BOL Voltage (mV)**

0.8A/cm<sup>2</sup>

735

1.5A/cm<sup>2</sup>

649

# BoL Performance (Humidity)

Pt loading (An/Ca)

PEM

0.05/0.4 mg/cm<sup>2</sup>

12um

## Evaluation Conditions

Cell temp.: 80°C

Pressure: 50/50kPaG

Stoic.: 2.0/2.5

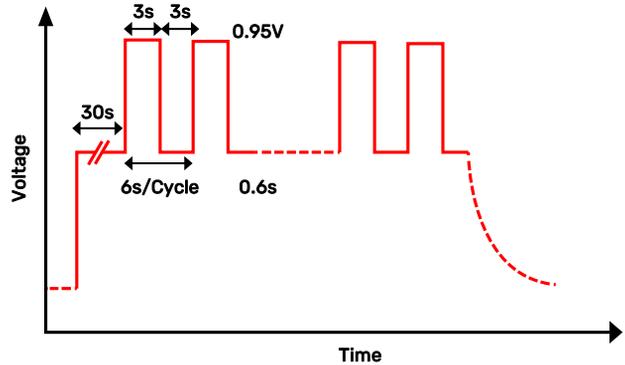
## AST Protocol

Cell temp.: 80°C

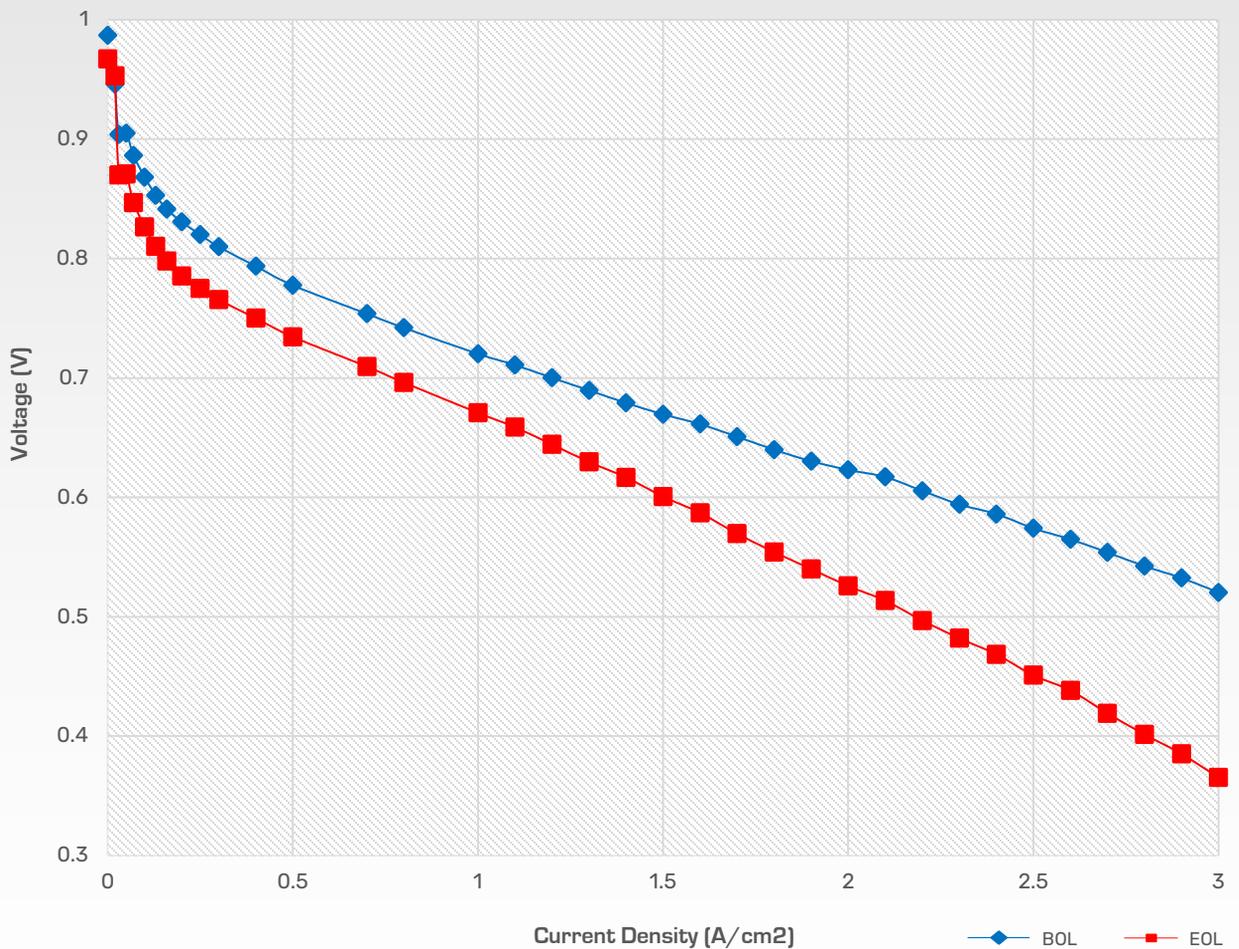
Voltage: 0.6-0.95V

Humidity: 100/100%RH Cycle: 30,000

Pressure: 0/0kPaG



88/42%RH



Current Density

88/42%RH\_BOL Voltage (mV)

88/42%RH\_EOL Voltage (mV)

0.8A/cm<sup>2</sup>

742

696

1.5A/cm<sup>2</sup>

670

601

# BoL Performance (Humidity)

**Pt loading (An/Ca)**

**PEM**

0.05/0.4 mg/cm<sup>2</sup>

12um

## Evaluation Conditions

Cell temp.: 80°C

Pressure: 50/50kPaG

Stoic.: 2.0/2.5

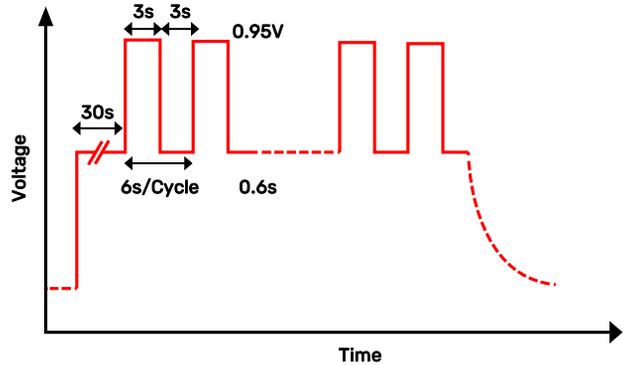
## AST Protocol

Cell temp.: 80°C

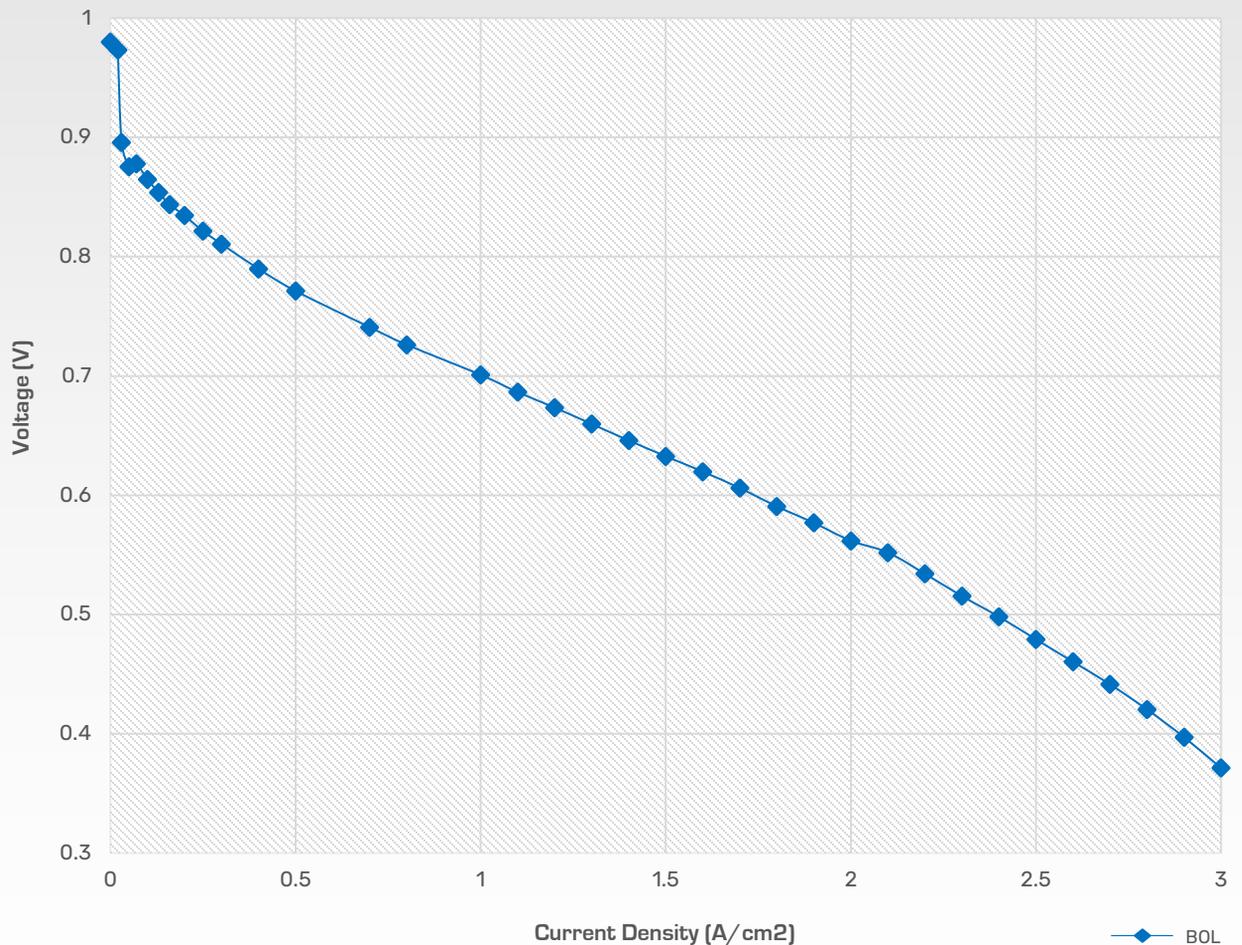
Voltage: 0.6-0.95V

Humidity: 100/100%RH Cycle: 30,000

Pressure: 0/0kPaG



20/20%RH



**Current Density**

**20/20%RH\_BOL Voltage (mV)**

0.8A/cm<sup>2</sup>

726

1.5A/cm<sup>2</sup>

633

# BoL Performance (Pressure)

Pt loading (An/Ca)

PEM

0.05/0.4 mg/cm<sup>2</sup>

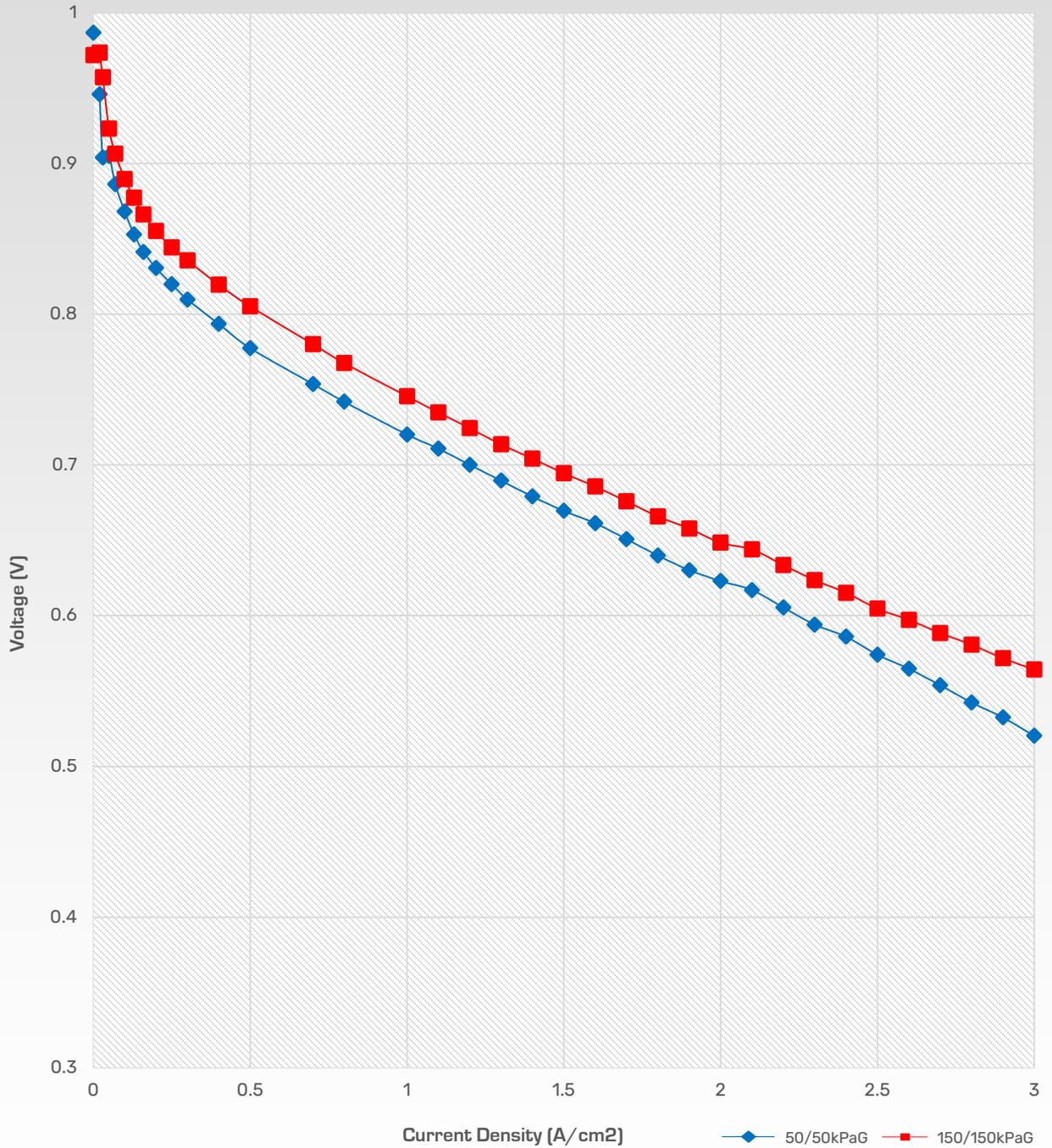
12um

## Evaluation Conditions

Cell temp.: 80°C

Humidity: 88/42%RH

Stoic.: 2.0/2.5



Current Density

50/50kPaG Voltage (mV)

150/150kPaG Voltage (mV)

0.8A/cm<sup>2</sup>

742

768

1.5A/cm<sup>2</sup>

670

695

## Ordering Instruction

- 3-layer MEA
- Standard Size: 200 mm x 270 mm (reaction area)
- Order Code: MEA-3-200-270

For 5-layer MEA, 7-layer MEA, and customized sizes, contact [hello@spectronik.com](mailto:hello@spectronik.com)

