

## PRODUCT SPECIFICATIONS & QUALITIES

Product Name: SP-PTL without Pt-coating

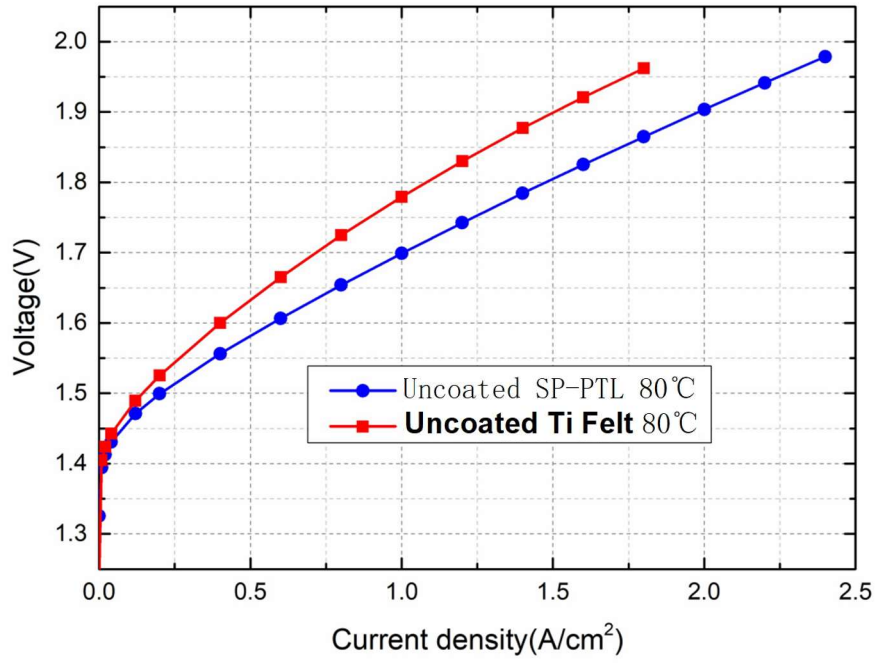
No.	Parameter	Specification
1	Length x Width	Customized
2	Pore Size	40×80 μm
3	Porosity	30% - 60%
4	Thickness	200 μm
5	Number of Pores/cm <sup>2</sup>	11500
6	Thickness tolerance	±5 μm
7	Tensile Strength	130 Mpa

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### TEST CONDITIONS

Standard test condition	Remark
<p><b>PEMWE with active area 25cm<sup>2</sup> (based on self-developed product)</b></p> <p><b>PEM: N115</b></p>	
<p><b>CCM---Anode: 0.3mg Ir/cm<sup>2</sup> (based on self-developed eHy-2002 product)</b></p> <p><b>Cathode: 0.3mg Pt/cm<sup>2</sup> (JM Pt/C,40 wt%)</b></p>	<p><b>The CCM is prepared by ultrasonic spraying method; The loading of Ir and Pt is measured by XRF.</b></p>
<p><b>Cathode gas diffusion layer: Hydrophilic carbon paper (the thickness is about 190 μm)</b></p>	
<p><b>Anode porous transport layer: Highly ordered porous transport layer (based on self-developed product)</b></p> <p><b>And uncoated Bekaert Ti felt.</b></p>	<p><b>The thickness of SP-PTL is about 200 μm; and the thickness of Bekaert Ti felt is 250 μm.</b></p>
<p><b>The sealing gasket: the thickness is about 180 μm (100+80 μm) with PTFE for SP-PTL on anode and 230 μm (200+30 μm) for Ti felt on anode, the thickness is about 160 μm (100+60 μm) with PTFE for cathode</b></p>	
<p><b>Exert pressure: applying 4 N•m for each M6 bolt</b></p>	
<p><b>Test temperature: 80 °C</b></p>	

### TEST RESULTS



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## SUGGESTIONS

- **In order to obtain the expected performance, here are some suggestions for you:**
- **The anodic gas diffusion layer and cathodic gas diffusion layer need to match the appropriate thickness of PTFE or the others sealing gasket, and we recommend the thickness of sealing gasket is 5-10% thinner than the gas diffusion layer.**
- **The CCM need to be activated before the measurement (Activation step: 0.1 A/cm<sup>2</sup>-30 min, 1 A/cm<sup>2</sup>-30 min, 1.7 V-60 min).**
- **It is recommended to use matrix point flow field or stacked 3D titanium mesh for the flow channel pattern of anode flow field plate, which is helpful to improve the effective use area of PTL.**

The logo for MOMENTA ENERGY is displayed in a light blue, rounded rectangular frame. The word "MOMENTA" is written in a bold, white, sans-serif font on the top line, and the word "ENERGY" is written in a bold, white, sans-serif font on the bottom line. The background of the frame is a solid light blue color.

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