



THINKRU HYDROGEN LTD

## SPECIFICATION FOR APPROVAL

| Part Number | Description                               |
|-------------|---|
| T-JFAR03    | JFAR03,PPST:0.85+0.1mm>550mmH2O<0.23Ω.cm2 |
| T-JFAR04    | JFAR04,PPST:0.85+0.1mm,>600mmH2O<025Ω.cm2 |

Rev: 1.0

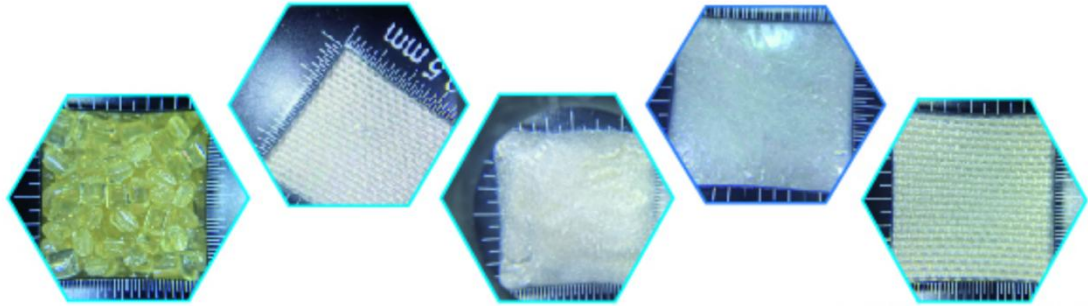
Date: 2024-06-07

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Modified Resin

Fiber Made of  
Modified Resin

Low Resistance  
Polyphenylene Sulfide  
Membrane Made of  
Modified Resin Fiber

### 01.Modified Resin Low Resistance Polyphenylene Sulfide Membrane

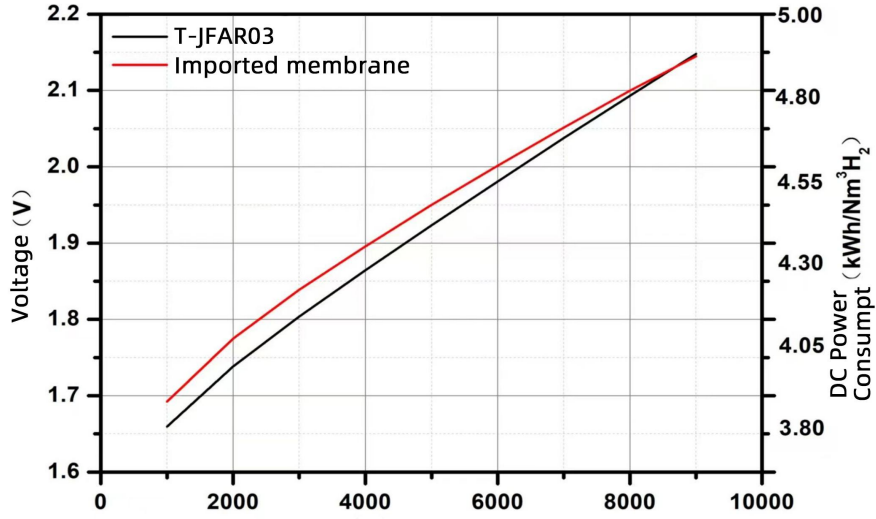
| Technical Parameters          | Units   | Specification  |       | Reference Standard |
|-------------------------------|---|----------------|-------|--------------------|
| Thickness                     | mm  | 0.85+0.10      |       | JISL1096-2010      |
| Active Area                   | mm  | ≤2700          |       | GB/T4669-2009      |
| Tensile Strength              | N/5 cm  | Warp Direction | >1500 | GB/T3923.1-2013    |
|                               | N/5 cm  | Weft direction | >1500 |                    |
| Air Tightness                 | Mm H <sub>2</sub> O   | >550           |       | JC/T211 -2009      |
| Surface Resistance            | Ω · cm <sup>2</sup>   | <0.23(60℃)     |       | SJ/T10171.5-1991   |
| Water Absorption Time         | Sec   | <2             |       | GB/T21655.1-2008   |
| Maximum Operating temperature | ℃   | 110            |       | -                  |
| Weight                        | g./m <sup>2</sup>   | 500 ± 20       |       | -                  |
| Packing                       | Paper Tube -Inner Diameter 76mm, Thickness 10mm<br>Supporting customized specific size for membrane and specified packing |                |       |                    |

## 02.Modified Resin High Air Tight Polyphenylene Sulfide Membrane

| Technical Parameters          | Units   | Specification  |       | Reference Standard |
|-------------------------------|---|----------------|-------|--------------------|
| Thickness                     | mm  | 0.85+0.10      |       | JISL1096–2010      |
| Active Area                   | mm  | ≤2700          |       | GB/T4669–2009      |
| Tensile Strength              | N/5 cm  | Warp Direction | >1500 | GB/T3923.1–2013    |
|                               | N/5 cm  | Weft direction | >1500 |                    |
| Air Tightness                 | Mm H2O  | >600           |       | JC/T211 –2009      |
| Surface Resistance            | Ω · cm <sup>2</sup>   | <0.25(60°C)    |       | SJ/T10171.5–1991   |
| Water Absorption Time         | Sec   | <2             |       | GB/T21655.1–2008   |
| Maximum Operating temperature | °C  | 110            |       | –                  |
| Weight                        | g./m <sup>2</sup>   | 500 ± 20       |       | –                  |
| Packing                       | Paper Tube –Inner Diameter 76mm, Thickness 10mm<br>Supporting customized specific size for membrane and specified packing |                |       |                    |

### 03.Test Datasheet

(1)Test Comparison between T–JFAR03 and imported brand



(2)Test Comparison between TR's PPS membrane and an imported brand membrane

| Current Density A/m <sup>2</sup> | 1000 | 2000 | 3000 | 4000 | 5000  | 6000  | 7000  | 8000  | 9000 |
|----------------------------------|------|------|------|------|-------|-------|-------|-------|------|
| An import brand PPS membrane     | 1.69 | 1.77 | 1.84 | 1.9  | 1.95  | 2     | 2.05  | 2.1   | 2.15 |
| T-JFAR03                         | 1.66 | 1.74 | 1.8  | 1.86 | 1.925 | 1.975 | 2.045 | 2.095 | 2.15 |
| T-JFAR04                         | 1.69 | 1.78 | 1.83 | 1.89 | 1.965 | 2.005 | 2.085 | 2.123 | 2.18 |

#### Electrochemical Performance

