

## IC100: A Perfluorosulfonic Acid (PFSA) Ionomer Dispersion for Fuel Cells and Hydrogen Electrolysis

### Features

- Ionomer dispersion in aqueous media (alcohol/water)
- High power generation
- Long-term stability in harsh fuel cell operating environments
- Forms and maintains a robust catalyst layer even after long-term operation

### Basic Properties of IC100

Property	Unit	Value or Remark
Ion Exchange Capacity (IEC, H <sup>+</sup> polymer basis)	meq/g	1.1 ± 0.1
Equivalent Weight (EW, H <sup>+</sup> polymer basis)	g/eq	909 median (833~1000)
Viscosity (at 76 sec <sup>-1</sup> shear rate)	mPa·s	300 ± 100
Colour (APHA/Hazen scale)	-	<100 (Colourless, Transparent)

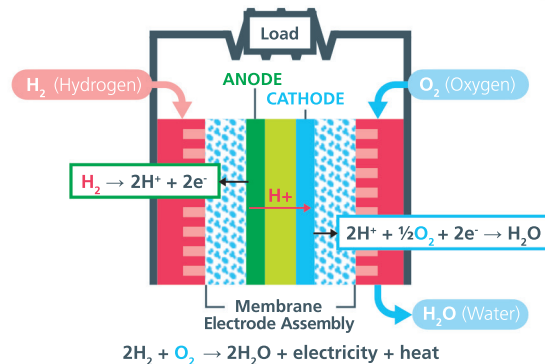
### Example of Conditions for Catalyst Layer / Ink Preparation

Catalyst	Catalyst	I/C	Pt: Cathode / Anode
	TEC10E50E (Product of TKK)	0.8	0.1 / 0.4 mg cm <sup>-2</sup>
Ink Preparation	Solid	Water/Ethanol	Processing
	10 wt%	1/1	Dispersed at 300 rpm / 1 hr by planetary ball mill

Notice to Customers: Purchasers of this product are required to submit a written agreement regarding prohibition of resale to any third party and not to use for any other purposes without prior consent.

### Composition of IC100

Component	Content (wt%)
PFSA Polymer	26 ± 2
Ethanol	44 ± 4
Water	30 ± 4



### PEMFC: Proton Exchange Membrane Fuel Cell

Generates electricity by use of hydrogen and oxygen.

