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NEWSLETTER

Issued by CeTech

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SUMMARY**1.1****UNTREATED**

CeTech Gas Diffusion Layer (GDL): It is a conductive carbon fiber developed by CeTech Co., Ltd. CeTech GDL adapts PAN-based carbon-fiber as a material, which has the high conductivity, gas-permeability and Corrosion resistance. Therefore, it's suitable for all types of full cell.

1.1.1**DIAGRAM**

A diagram shows the performance among carbon paper & carbon cloth & reformed carbon cloth

2.1**MPL TREATMENT**

CeTech GDL Treatment, it is using micro-porous materials adapting high efficient carbon powder as a material, which effectively enhances flatness on the surface, conductivity and porosity.

2.1.1**DIAGRAM**

A diagram shows the performance between untreated carbon paper & MPL treatment carbon paper.

✧ Technique Information ✧

CeTech regularly issue a technique information every quarter, from our technique newsletter you can be timely updated for all new R&D directions and activities, please contact us for more detail.

1.1 Untreated

CeTech Gas Diffusion Layer (GDL): It is a conductive carbon fiber developed by CeTech Co., Ltd. CeTech GDL adapts PAN-based carbon-fiber as a material, which has high conductivity, gas-permeability and Corrosion resistance. Therefore, it's suitable for all types of full.

 Character

★**Carbon Paper Series** CeTech Carbon Paper is mainly used in PEMFC. The thickness is from the range of 0.2mm to 0.5mm, which is suitable for all micro-fuel cell.

★**Carbon Cloth Series**

CeTech Carbon Cloth is mainly suitable for DMFC, as it has high osmosis with a thickness range from 0.3 to 0.5mm.

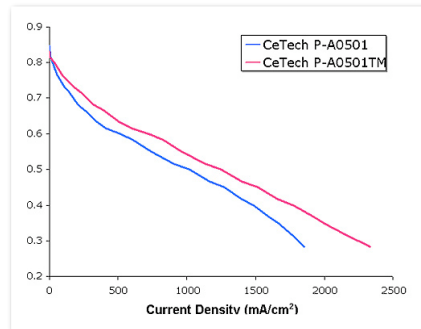
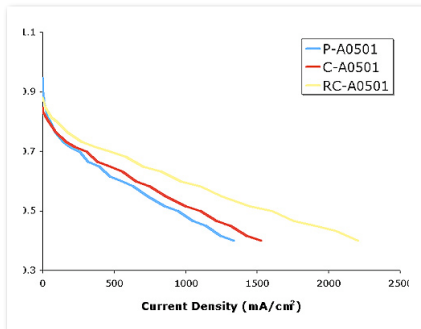
★**Reformed Carbon Cloth Series**

CeTech Reformed Carbon Cloth is a combinative carbon fibre cloth, which is a reformed GDL. It has the advantages of both carbon paper and cloth and improves the weakness of carbon cloth; in other words, it has more strength that is essential for continuing automation, and its performance is better than carbon paper as well.

1.1.1 Diagram

Here is the CeTech GDL performance shown below; the testing conditions are:

- Battery Temperature: 40°C
- Anode: H₂, 100 kg/cm², 200 cc/min
- Cathode: O₂, 100 kg/cm², 200 cc/min
- Active Area: 25 cm²



2.1 MPL Treatment

CeTech GDL Treatment, it is using micro-porous materials adapting high efficient carbon powder as a material, which effectively enhances flatness on surface, conductivity and porosity.

Character

CeTech GDL Treatment can effectively caulk the gap between the fibres, and it avoids the catalyst falling into GDL; moreover, it can reduce the contact resistance by enhancing the flatness in surface, and this endows the good hydrophobic to prevent the water sedimentary in MEA.

2.1.1 Diagram

Here is the CeTech GDL Treatment performance shown below; the testing conditions are:

- Battery Temperature: 40°C
- Anode: H₂, 100 kg/cm², 200 cc/min
- Cathode: O₂, 100 kg/cm², 200 cc/
- Active Area: 25 cm²