

Gas Diffusion Electrode and Layer

De Nora E-TEK® GDE and GDL

Catalyzed or Uncatalyzed Carbon Paper or Cloth

With over 90 years of experience in designing and manufacturing electrodes as well as patented noble metal coatings for enhancing performance of electrochemical processes, De Nora provides standard gas diffusion electrodes as well as customized solutions with different gas diffusion layers and specialty gas diffusion catalysts developed in our R&D centers.:

- 20 years of experience in E-TEK products
- Roll-to-roll manufacturing plant in Germany which increases throughput and reliability and lowers cost
 - 30,000m² GDE for hydrochloric acid ODC applications sold from 2005-2012
- Ability to provide product samples from R&D locations in the USA (Ohio) and Japan





E-TEK Product Specifications:

- Standard support is a plain weave carbon cloth of 116 g/m² and thickness of approximately 0.35mm
 - Any carbon paper from any vendor can be manually coated, roll-to-roll manufacture limited by paper brittleness
 - As an option, any carbon cloth (different weaves or weight) can be used
- The finished catalyzed electrode ranges from 0.45 to 0.55mm depending on the catalyst loading required
 - Any E-TEK catalyst recipe can be applied (see De Nora catalyst brochure) on one or two sides. The nominal catalyst is 0.5 mg/cm² loading of 30% Platinum on XC-72 carbon
 - A micro porous layer can be applied depending on application
 - A PTFE layer can be applied with varying thickness based on the amount of hydrophobicity required in application
- A minimum of 10 linear meters and maximum of 20 linear meters of material is available from the roll-to-roll coating process
- Sintered sheet available at a maximum size of m 1.2m x 0.38
- For high pressure applications, a 0.125mm thick titanium mesh can be hot pressed to the back of the gas diffusion electrode

*E-TEK is a Registered Trademark of Industrie De Nora, S.p.A

ELECTRODE TECHNOLOGIES & WATER TECHNOLOGIES



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