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Hot filament CVD-Diamond coating technology for industrial scale production

Michael Woda, Martin Frank, Biljana Mesic, Werner Kölker, Christoph Schiffers, Oliver Lemmer

CemeCon AG, Wuerselen, Germany

michael.woda@cemecon.de

The versatility of hot filament chemical vapour deposition technology enables a broad spectrum of applications for different substrates and diamond-modifications. A special coating machine allows deposition of diamond coatings with different properties on numerous types of substrates in an industrial scale. This is achieved by highly versatile hot filament arrays, substrate fixtures and process parameters. In the area of cutting tools CVD-diamond coatings are well established. New applications are machining of challenging composite materials such as carbon fiber reinforced plastics (CFRP) or finally sintered cemented carbides and ceramics. In other areas of technology the coating machine is capable to deposit on large scale substrates. Examples are boron doped electrodes and self-supporting diamond foils.

Keywords

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