

常圧 エアゾール式コーター

～薄膜を均一に高速コーティング、量産機へのスケールアップ可能～

概要

TCO(透明導電酸化)膜の量産向けコーティングに開発された独自技術
常温で薄い液フィルムのコーティングが可能



- 非接触
- 常圧にて連続コーティング
- 優れた材料使用効率
- 高品質膜を均一にコーティング
- ターンキー、又は、既存ラインへの統合が可能

ラインアップ



<ACS 200> 研究開発装置

- コーティング均一性: ±3%以内(標準材料)
- コーティング厚: 10～500nm(乾燥後)
- サンプルサイズ: 200 x 200 mmまで
- 材料使用効率: 95%まで可能
- 材料供給: 独立2系統
- 800 x 1,400mm基板プロセスまでスケールアップ可能

技術	コーティング品質	プロセス速度	スケールアップ
nFOG コート	良い	良い	良い
ディップコート	良い	悪い	悪い
スピコート	良い	悪い	悪い
スロットダイコート	良い	良い/悪い	悪い
スプレーコート	悪い	良い	良い
ロールコート	悪い	良い	良い

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Espoo, Finland

Beneq launches nFOG™ wet coating technology

Beneq is pleased to announce the launch of its new atmospheric wet coating technology called nFOG™ for use in applications such as anti-reflective coatings for large-sized glass. This new technology combines the advantages of the speed of spray coating, the quality of dip coating and the high material yield of roller coating. Beneq's nFOG is currently in use as a pilot plant.

Beneq's latest atmospheric pressure nFOG wet coating technology uses a unique contact-free deposition method to coat the most sensitive substrates, along with those of different thicknesses, shapes or size variations. Typical coating uniformity is better than $\pm 3\%$; substrate size can be up to meter scale.

The aerosol-based process works with a wide range of liquid source materials, including water- or alcohol-based solutions or colloids. Typical dry coating thicknesses range from 10–500 nm.

As the deposition system has no moving parts, the process is robust and repeatable. The majority of material used in the process can be recycled, therefore enabling a uniquely high material yield of up to 95%. Additionally, the modular approach allows scaling up to be simple and efficient.

"Our new nFOG technology can be used to scale most sol-gel or other liquid-based coating processes, from lab scale into full industrial scale, while maintaining the quality of spin or dip coating," says Sampo Ahonen, CEO, Beneq.

For researchers, Beneq offers ACS 200 lab scale equipment that combines fast sampling with low material consumption. It accommodates up to 200 mm round wafers or other substrate materials. Before scaling up, customers can rent a pilot-scale test system that processes substrates up to 800 × 1400 mm. For full industrial production, Beneq provides turnkey solutions or an integrated coating system within an existing production line.



Beneq's Aerosol Coating System ACS 200 is designed for R&D and fast sampling.

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Beneq, leading supplier of production and research equipment for thin film coatings, is also the world's premier manufacturer and developer of thin film electroluminescent (TFEL) displays. Beneq equipment and thin film experience is used for improving the efficiency of crystalline silicon and thin film solar cells, enhancing the durability of organic electronics and protecting silver from tarnishing. In addition to process equipment, Beneq also offers full thin film coating services.

www.beneq.com

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