TranSiMax[™] Coating

Rapid changeout and high performance for the most critical post CMP clean applications

Entegris uses its innovative, low-temperature Plasma Enhanced Chemical Vapor Deposition (PECVD) process to deposit a family of silicon nitride coatings for various industrial applications, including semiconductor equipment OEMs. The coating is also suitable for high-temperature oxidation/corrosion protection of ceramic materials. The TranSiMax™ coating has good barrier properties and thus can be used for encapsulation/minimize permeation. The coatings have very high electrical resistivity can be deposited on a wide variety of substrates. The coatings are amorphous and exhibit high reflectance/high emissivity in the extreme ultraviolet, making them suitable for EUV optical components.



APPLICATIONS

- Oxidation/corrosion protection
- High emissivity requirements during semiconductor wafer processing

FEATURES & BENEFITS

- Optically transparent
- Excellent breakdown voltage

SPECIFICATIONS

Substrate	Compatibility	Most metals and ceramics
	Size	Up to 91 cm (36")
	Geometry	Any shape, including complex geometries
Structure	Amorphous	
Temperature	Deposition	<150°C (302°F)
	Use	650°C (1202°F)
Coating thickness	A few nm to over 100 μm	
Electrical resistivity	~10 ¹³ Ω-cm	
Hardness	1200 HV	
Dielectric strength	80 V/micron	
Purity	99.95%	
Wear resistance	Very good	
Corrosion resistance	resistance High-temperature oxidation resistance in air up to 650°C (1202°F) Excellent aqueous corrosion resistance	

FOR MORE INFORMATION

To learn more about how Entegris' high-purity specialty coatings help customers enhance yields, improve productivity, and meet future technological needs, call Entegris at +1 781 538 8745.

To review Entegris' specialty coatings offering, visit Entegris' website at entegris.com.

TERMS AND CONDITIONS OF SALE

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