Rotatable Magnetron Sputtering Targets



Titanium Sub-Oxide TiOx

KEY FEATURES

Saint-Gobain sputtering targets are produced using a proprietary process, which brings a unique set of features to the market. Our ${\rm TiO_x}$ Targets are designed for an optimum reliability, enabling high power sputtering, and their dense microstructure yield in a clean sputtering with less dusting and particle release. Our manufacturing capabilities enable us to fully customize the thickness profile ("dog-bone" shape) with a continuous surface and a strong bond, and we can offer sizes up to 3.9 meters long (12.75 feet).

TiOx Version	TiOx (1.95)	TiOx (1.86)
Target Thickness	Up to 9 mm	Up to 9 mm
Thickness profile	Straight or Dog-bone (without joints)	Straight or Dog-bone (without joints)
Target maximum length	Up to 3.9 meters (12.75 feet)	Up to 3.9 meters (12.75 feet)
Target density	4.05 ± 0.1 g/cm ³	4.00 ± 0.1 g/cm ³
Purity	>99.7%	>99.7%
Oxygen stoichiometry	TiO_x with $x \approx 1.95$	TiO_x with $x \approx 1.86$
Electrical resistivity	2 Ω.cm	0.15 Ω.cm
Surface finish (Ra)	Polished (< 0.8 µm) or Raw	Polished (< 0.8 µm) or Raw

APPLICATIONS

Our TiO_x Targets are proven and qualified by various end-users for the most demanding applications such as:

- Architectural Glass (high optical index layer)
- Automotive Glass (high optical index layer)
- Solar Glass (for anti-reflective function)
- Display Glass (for anti-reflective function)
- Web Coating on Polymer films (high optical index layer)

Customized compositions with some dopants or minor phase can be considered and developed on-demand.

BENEFITS

- Safe and Stable operation up to 35 kW/m in DC and up to 40 kW/m in AC or pulsed DC
- Lower cost of ownership thanks to the customized "dog-bone" shape option
- Lower dusting (particle release) during operation thanks to our proprietary process and microstructure

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