

# Rotatable Magnetron Sputtering Targets



## High Purity Silicon

### KEY FEATURES

Saint-Gobain sputtering targets are produced using a proprietary process, which brings a unique set of features to the market. Our High Purity Silicon Targets combine high-purity, continuous surface (no joints) up to 3.9 meters long (12.75 feet) and even in a customized Dog-Bone shape enabling the best material usage. The strong bond on the backing tubes (Stainless steel or Titanium) is Indium-free and allows safe operation down to the last mm of sputtering.

Target Thickness	Up to 9 mm
Thickness profile	Straight or Dog-bone (without joints)
Target maximum length	Up to 3.9 meters (12.75 feet)
Target density	$2.20 \pm 0.1 \text{ g/cm}^3$
Purity (metals)	>99.95%
Oxygen content	< 500 ppm
Nitrogen content	< 100 ppm
Electrical resistivity	< 0.05 $\Omega \cdot \text{cm}$
Surface finish (Ra)	< 0.8 $\mu\text{m}$
Surface finish (R Max)	< 10 $\mu\text{m}$

### APPLICATIONS

Our High purity Metal Si Targets can allow the magnetron sputtering deposition of either:

- Pure Si thin film
- Oxide  $\text{SiO}_2$  thin film
- Nitride  $\text{Si}_3\text{N}_4$  thin film

For the most demanding applications such as:

- Touch Screen Display Glass (Touch sensor / Color filter)
- Web Coating (Si-based barrier layers on polymer films)

### BENEFITS

- Safe and Stable operation with reduced risk of cracking compared to traditional sintered Si targets
- Lower cost of ownership thanks to the customized “dog-bone” shape option

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