

Titanium Oxide (TiO_x)

Rotatable Sputtering Targets
for Glass Applications

Materion is a leading supplier of rotatable sputtering targets for large area glass coatings. Our high purity Titanium Oxide (TiO_x) sputtering targets are specifically developed to produce low defect and high performance thin films.

Benefits

- Special target geometry provides greater material utilization
- Longer target life time reduces downtime for changeouts and chamber maintenance
- Pure TiO_x with optimized microstructure for best homogeneity and sputtering performance on full target volume
- Customized x-value possible
- Custom designed special geometries available

Technical Data

Application	Glass, dielectric base layer, blocker layer
Production Method	Thermal spray
Material	TiO _x (x adjustable 1.6 to 1.9)
Composition	Pure
Purity	2N6
Max Length	Up to 4 m
Thickness	Up to 9 mm, dogbone 7/9 mm; alternative thickness available on request
Dogbone	Possible
Melting Point	Approx 1800° C
Thermal Conductivity	3 W/m · K
Density	≥ 4 g/cm ³
Electrical Resistivity	0.19 Ohm·cm
Thermal Expansion Coefficient	7.9 · 10 ⁻⁶ K ⁻¹
Sputter Rate	40nm · m/min DC mode; 55nm · m/min MF (AC) mode
Recommended Sputter Power	15 kW/m DC mode; 30 kW/m MF (AC) mode
Arcing Rate	Negligible
Microstructure	< 150 μm