

Tantalum pentoxide -Ta2O5



1. Material Introduction

Tantalum pentoxide (Ta₂O₅) is a high refractive index material with high chemical stability, insoluble in water, and transparent in the infrared and visible regions. Its film is stable and difficult to crystallize. It is a good dielectric material and is often used in semiconductor devices.

2. Technical Parameters

Symbol	Ta ₂ O ₅
Color/Appearance	Charcoal black granules 、 white crystalline powder
Type	Granules 、 Targets
Melting Point(°C)	1872°C
Refractive Index	2.1 at 500nm
Purity	99.9-99.99%
Density	8.2g/cm ³
Evaporation Source	E-beam
Application	Multilayer film Dielectric film

3. Field Application

Application Area	Application Component
Optical glass	Capacitor
Chemical catalyst	Optical instrument
electronics industry	Semiconductor components