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Ta_2O_5

1. Application:

Ta_2O_5 is a high-index, low-absorption material usable for coatings in the near-UV (350 nm) to IR (>8 μm) regions. Dense, hard layers can be deposited by electron-beam evaporation or by sputtering. Typical applications include near-UV to near-IR anti-reflective and multilayer filter coatings. Tantala can be used in combination with low-index Silicon dioxide layers to form high index-contrast multilayer structures ranging from wide-band AR coatings to bandpass filters and dichroic beam-splitters. That material combination is used to make thick multi-layer stacks that exhibit very low stress. Hard, scratch-resistant and adherent coatings can be deposited on glass and metal substrates. Films are also used for dielectrics in film capacitors and as gate insulators in large scale integrated circuits requiring low leakage voltage characteristics.

2. Product Detail:

Product	Tantalum Pentoxide
Formula	Ta_2O_5
Purity	99.99% pure
Type	Granules
Color	Dark Gray
Size	1-3 mm
Density	8.2 g/cm³ (20 ℃)
Melting point	1800℃
Refractive Index @550nm	2.16
Transparency Range (μm)	0.35~9
Package	1kg/bag with plastic can
Period of validity	3 years
Storage	Avoid exposure to sunlight & acid Keep dry