

TITANIUM OXIDE NANOPOWDER (Rutile)



Purity
99.9%

TiO₂



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NS6130-03-352

(Rutile)

TITANIUM OXIDE NANOPOWDER

TiO₂ is available in the form of nanocrystals or nanodots having a high surface area. They exhibit magnetic properties. Titanium belongs to Block D, Period 4 while oxygen belongs to Block P, Period 2 of the periodic table. Titanium oxide is also known as flamenco, rutile, titanium dioxide and dioxotitanium. In recent years, metal oxide nanoparticles have attracted much attention by their potential application in diverse fields including catalysis, magnetic recording media, microelectronics, and medicine. For example, TiO₂ nanoparticles are very important due to their various applications like removing the environmental pollution, sterilization and restraining virus, defending UV, keep the rust away, and de-pigment. Rutile is the most common natural form of TiO₂. In the natural rutile may consist of 10% iron and significant amounts of tantalum and niobium. Since the bandgap of rutile titanium dioxide nanoparticles is 3 eV and it has applications in textile fibers or wood preservatives. Therefore, rutile titanium dioxide nanoparticles are commonly studied in photonics and semiconductor technology. It is also used in sunscreens to protect the skin from UV radiation. It can be additive or component of composites to insert photocatalytic activity to composites.

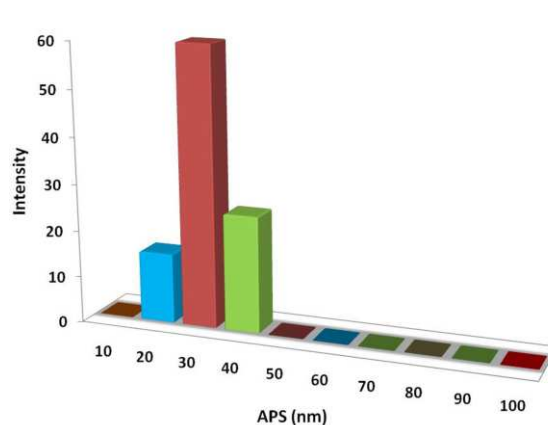
QuickFACTS

Product	:	Titanium Oxide Nanopowder (Rutile)
Stock No	:	NS6130-03-352
CAS	:	13463-67-7
Color	:	White
Form	:	Powder
Symbol	:	TiO ₂
Group	:	Titanium 4/Oxygen 16

Electronic Configuration:

Titanium [Ar] 3d² 4s²

Oxygen [He] 2s² 2p⁴



ADDITIONAL POWDER CHARACTERISTICS

Stock No.	Purity	APS
NS6130-03-352	99.9%	30nm

TECHNICAL SPECIFICATION

Molecular Formula	Molecular Weight	Density	Melting Point
TiO ₂	79.866 g/mol	4.23 g/cm ³	1843 °C

CHEMICAL COMPOSITION

Product	Weight Percent (nominal)	
	TiO ₂	Other Metal
Titanium Oxide Nanopowder	99.9%	1000ppm

APPLICATIONS

- > Utilized in textile fibers or wood preservatives
- > To insert photocatalytic activity to composites
- > In paints,
- > In plastics,
- > In paper technology
- > In foods
- > Used in sunscreens



20ZICE4589C



19ZAZGO1274G



20ZICE4588M

ISO 9001:2015
CERTIFIED COMPANY

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