TITANIUM OXIDE NANOPowDER
Coated with Silicon

Purity 99.9%

TiO₂
Nanoscale TiO$_2$ that is manufactured for specific applications is by approximately a factor of 100 finer than the TiO$_2$ pigments and has other physical properties. Currently, they are mainly found in high-factor sun protection creams, textile fibers or wood preservatives. For a long time, sun creams have been manufactured adding titanium oxide micro particles that gave the products a pasty, sticky consistency. TiO$_2$ is a highly insoluble thermally stable. They are typically insoluble in aqueous solutions (water) and extremely stable making them useful in ceramic structures as simple as producing clay bowls to advanced electronics in light weight structural components in aerospace and electrochemical applications such as fuel cells in which they exhibit ionic conductivity. Metal oxide compounds are basic anhydrides and can therefore react with acids as well as with strong reducing agents in redox reactions. TiO$_2$ is mostly used as white pigment because of its high diffraction index, strong light scattering, incident-light reflection capability and a high UV resistance that make TiO$_2$ the standard pigment found in white dispersion paints with high hiding power.

**TITANIUM OXIDE NANOPowDER**

Quick Facts

Product : Titanium Oxide Nanopowder
Stock No : NS6130-03-353
CAS : 13463-67-7
Color : White
Form : Powder
Symbol : TiO$_2$
Group : Titanium 4/Oxygen 16

Electronic Configuration:

Titanium [Ar] 3d$^2$ 4s$^2$
Oxygen [He] 2s$^2$ 2p$^4$

**APPLICATIONS**

- Utilized as UV-resistant material, Photocatalyst, antibacterial material
- Employed in chemical fiber, plastics, printing ink, coating
- In the self-cleaning glass, self-cleaning ceramics, air purification, sewage treatment
- In the chemical industry
- Utilized in Cosmetics
- Used in foods packing material
- Utilized in coating for paper-making industry
- Astronautics industry.

**TECHNICAL SPECIFICATION**

<table>
<thead>
<tr>
<th>Molecular Formula</th>
<th>Molecular Weight</th>
<th>Density</th>
<th>Melting Point</th>
</tr>
</thead>
<tbody>
<tr>
<td>TiO$_2$</td>
<td>79.866 g/mol</td>
<td>4.23 g/cm$^3$</td>
<td>1843 °C</td>
</tr>
</tbody>
</table>

**ADDITIONAL POWDER CHARACTERISTICS**

<table>
<thead>
<tr>
<th>Stock No.</th>
<th>Purity</th>
<th>APS</th>
</tr>
</thead>
<tbody>
<tr>
<td>NS6130-03-353</td>
<td>99.9%</td>
<td>30nm</td>
</tr>
</tbody>
</table>

**CHEMICAL COMPOSITION**

<table>
<thead>
<tr>
<th>Product</th>
<th>Weight Percent (nominal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Titanium Oxide Nanopowder</td>
<td>99.9%</td>
</tr>
</tbody>
</table>

**ISO 9001:2015 CERTIFIED COMPANY**

INTELLIGENT MATERIALS PVT LTD
Derabassi
Punjab (140507)
INDIA
+91 9779 559077, 9779238252

NANOSHEL UK LIMITED
Chapel House,
Chapel St Chevries,
CW12 4AB United Kingdom
+44 1782 454 144, +44 74 105 48802

NANOSHEL LLC
3422 Old Capitol Suit
1305 Wilmington DE - 19808
United States
+1 646 470 4911