

# Discover the Brightness

Titanium Dioxide Manufacturing Process

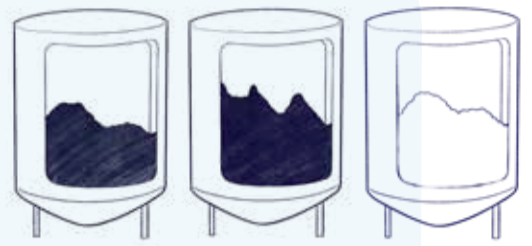
Chloride Process



Base Material Production

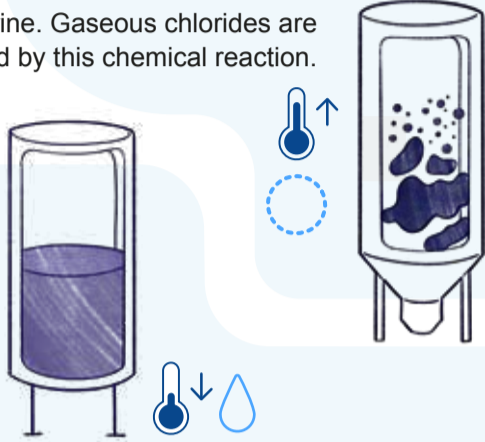
Storage

Storage of ore, coke and salt.



Chlorination

Heating the titanium ore together with coke and let the mixture react with chlorine. Gaseous chlorides are released by this chemical reaction.



Condensation

Cooling down the gaseous chlorides to separate titanium tetrachloride from other metal chlorides.



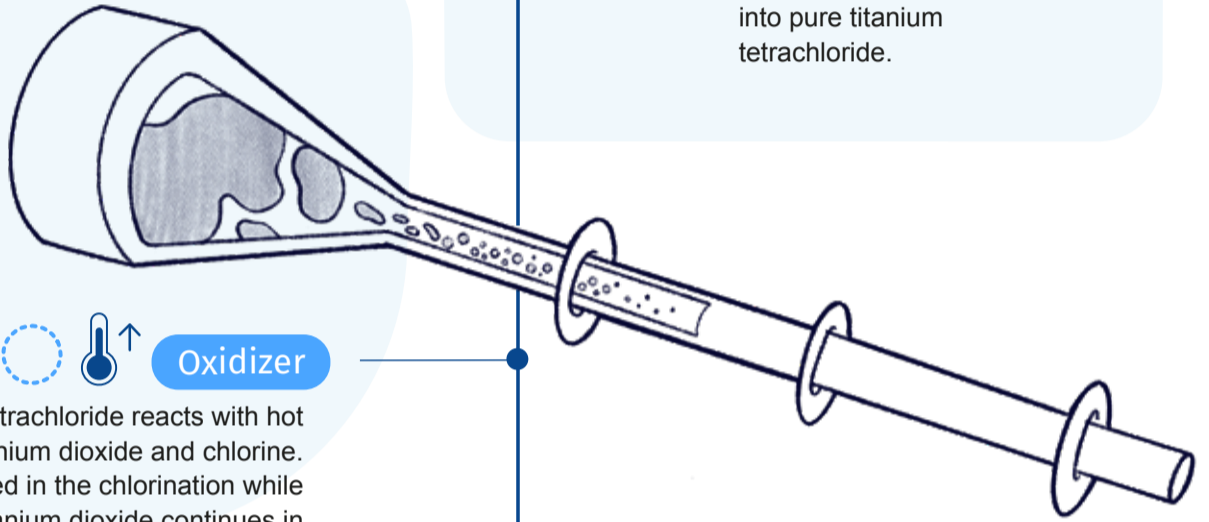
TiCl<sub>4</sub> Purification

In a subsequent stage this material is further distilled into pure titanium tetrachloride.



Oxidizer

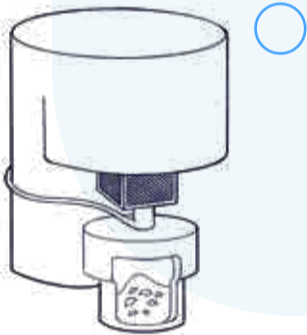
Pure titanium tetrachloride reacts with hot oxygen to create titanium dioxide and chlorine. The chlorine is reused in the chlorination while the titanium dioxide continues in the production process.



Finishing

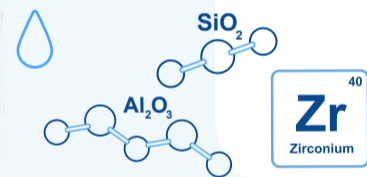
Wet Milling

The TiO<sub>2</sub> is wet milled to reduce the size of any coarse particles and optimize the particle size distribution.



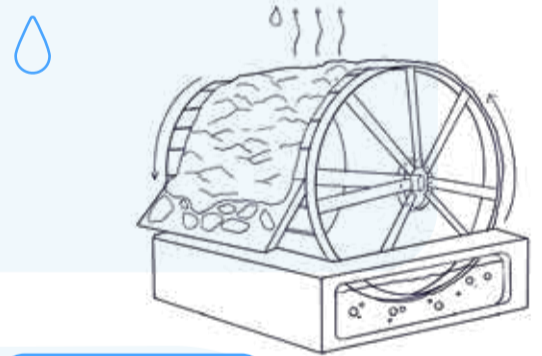
Inorganic Treatment

Treatment compounds are added to determine the final application.



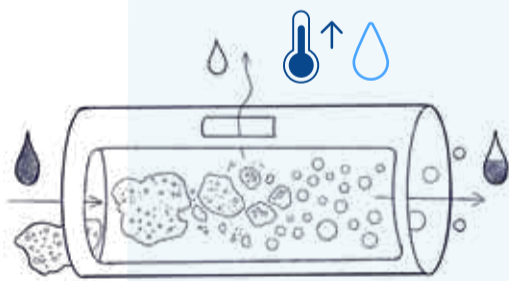
Filtration

The treated suspension is washed and dewatered.



Drying

The remaining moisture content is reduced.



Steam Milling

Further deagglomeration of the dry material to achieve optimal particle size distribution.



Packaging



Finished Titanium Dioxide

