



## Titanium dioxide R5566

Titanium dioxide ( $\text{TiO}_2$ ) is a naturally occurring compound that is widely used as a white pigment in various industries due to its excellent light-scattering properties and high refractive index. It is commonly found in two primary crystalline forms: rutile and anatase.

### Application

1. **Paints and Coatings:** Titanium dioxide is a major component in paints, coatings, and architectural finishes, providing opacity, brightness, and UV resistance.
2. **Plastics and Polymers:** It's used to impart whiteness and opacity to plastic products, such as packaging materials, films, and plastic parts.
3. **Cosmetics and Skincare:** Titanium dioxide is found in many cosmetics, sunscreens, and skincare products due to its ability to reflect and scatter UV radiation.
4. **Food and Pharmaceuticals:** It's used as a food additive (E171) to enhance the appearance and texture of food products like candies, dairy items, and baked goods. It's also used in pharmaceutical formulations.
5. **Ceramics and Glass:** Titanium dioxide is added to ceramics and glass to improve their properties and appearance.
6. **Photocatalysis:** Titanium dioxide has photocatalytic properties, making it useful in self-cleaning surfaces, air purification, and water treatment technologies.