



# Ti-Pure™

## R-706 Titanium Dioxide

## Product Information

### Product Description

Ti-Pure™ R-706 is a universal rutile titanium dioxide pigment, manufactured by the chloride process, that is designed to deliver both high gloss and excellent durability in coatings. This outstanding combination of end-use performance properties makes it a versatile pigment in solvent and waterborne systems for architectural, industrial, and automotive applications. Ti-Pure™ R-706 has the following general properties.

**Table 1.**

Analysis and Physical Properties of Ti-Pure™ R-706

Property	R-706
TiO <sub>2</sub> , wt%, min.	93
Alumina, wt%	2.5
Amorphous Silica, wt%	3.0
Specific Gravity	4.0
Bulking Value, L/kg (gal/lb)	0.25 (0.03)
Organic Treatment	Yes
Color CIE L*	99.4
Median Particle Size, μm	0.36
Oil Absorption	13.9
pH	8.2
Resistance at 30 °C (86 °F) (1,000 ohm)	10
Carbon Black Undertone	13.8

Note: All values are typical unless otherwise specified.

### Key Features

- High gloss
- Super durability
- Excellent dispersibility
- Easy wet-in
- Good hiding
- Blue undertone

### High Gloss

Careful control of the TiO<sub>2</sub> particle size during manufacture of R-706 results in exceptional gloss performance. R-706 has a tight particle size distribution, resulting in less oversized particles that detract from gloss.

### Super Durability

Unique encapsulation of the TiO<sub>2</sub> particle by a continuous coating of silica (SiO<sub>2</sub>) is responsible for the excellent durability of R-706. Florida exposure data for R-706 shows excellent gloss retention and chalk resistance.

### Excellent Dispersibility

The alumina (Al<sub>2</sub>O<sub>3</sub>) surface treatment reduces the contact between TiO<sub>2</sub> particles, resulting in excellent dispersion of R-706 in solventborne systems. To further enhance dispersion, we apply an organic treatment during manufacture.

### Easy Wet-in

Novel precipitation of the silica and alumina surface treatments result in the low oil absorption properties of R-706 that are responsible for its excellent wet-in. Less power required for R-706 wet-in could result in productivity gains and capacity increases.

### Good Hiding

The low surface treatment levels, 3% amorphous silica and 2.5% alumina, result in a high TiO<sub>2</sub> content for R-706, contributing to good hiding. The mean particle size of R-706 approaches the optimum particle size for scattering efficiency.

### Blue Undertone

Small particle size TiO<sub>2</sub> grades scatter blue light more effectively than larger particle size grades and hence have a bluer undertone. The bluer undertone of R-706 imparts a brighter, cleaner tint.

### Shipping Containers

Ti-Pure™ R-706 is available in 25-kg paper bags and semi-bulk containers (1/2 and 1 metric ton). Truckload shipments of the dry product are available directly from Chemours. Less-than-truckload volumes are available through one of the authorized Chemours distributors.

Water slurries are available in some regions in truckload shipments (15 metric ton) and railcar (67 metric ton).

### Product Storage

The shelf life of Ti-Pure™ TiO<sub>2</sub> is indefinite as long as the material is kept from direct contact with moisture.

For further information about this grade or to request a sample, please see the Ti-Pure web site.

[www.titanium.chemours.com](http://www.titanium.chemours.com)

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