



Ti-Pure™

TS-6706 Titanium Dioxide

TMP/TME-free Version of Ti-Pure™ R-706

Product Information

Product Description

Ti-Pure™ TS-6706 is a TMP- and TME-free 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™ TS-6706 has the following general properties.

Table 1.

Analysis and Physical Properties of Ti-Pure™ TS-6706

Property ¹	Ti-Pure™ TS-6706
TiO ₂ , wt%, min.	93
Alumina, wt%	2.5
Amorphous Silica, wt%	3.0
Specific Gravity	4.0
Bulking Value, L/kg (gal/b)	0.25 (0.03)
TMP/TME-Free Organic Treatment	Yes
Color CIE L*	99.4
Median Particle Size ² , μm	0.36
Oil Absorption ³	13.9
pH	8.2
Resistance at 30 °C (86 °F) (1,000 ohm)	10
Carbon Black Undertone	13.8

¹**Property:** Values reported are "typical" unless minimum and maximum values are reported. Chemours test methods used to determine the values reported, and specification sheets, are available from Chemours Ti-Pure™ sales or technical representative.

²**Median Particle Size:** Measured using laser light scattering (HORIBA LA 300)

³**Oil Absorption:**

- Chemours Test Method (linseed oil AN 12)
- ASTM norm (D281-95 (2007)) uses linseed oil with AN<4
- Oil Absorption (ASTM) = Oil Absorption Chemours x 1.35

Key Features

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

High Gloss

Careful control of the TiO₂ particle size during manufacture of Ti-Pure™ TS-6706 results in exceptional gloss performance. Ti-Pure™ TS-6706 has a tight particle size distribution, resulting in less oversized particles that detract from gloss.

Excellent Durability

Unique encapsulation of the TiO₂ particle by a continuous coating of silica (SiO₂) is responsible for the excellent durability of Ti-Pure™ TS-6706. Data for Ti-Pure™ TS-6706 shows excellent gloss retention and chalk resistance.

Excellent Dispersibility

The alumina (Al₂O₃) surface treatment reduces the contact between TiO₂ particles, resulting in excellent dispersion of Ti-Pure™ TS-6706 in waterborne and solventborne systems. To further enhance dispersion, we apply a TMP/TME-free organic treatment during manufacture.

Easy Wet-in

Proven precipitation of the silica and alumina surface treatments result in the low oil absorption properties of Ti-Pure™ TS-6706 that are responsible for its excellent wet-in. Less power required for Ti-Pure™ TS-6706 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 TiO₂ content for Ti-Pure™ TS-6706, contributing to good hiding. The mean particle size of Ti-Pure™ TS-6706 approaches the optimum particle size for scattering efficiency.

Blue Undertone

Small particle size TiO₂ grades scatter blue light more effectively than larger particle size grades and hence have a bluer undertone. The bluer undertone of Ti-Pure™ TS-6706 imparts a brighter, cleaner tint.

Shipping Containers

Ti-Pure™ TS-6706 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.

Product Storage

The shelf life of Ti-Pure™ TiO₂ 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.

tipure.com

CAUTION: Do not use or resell Chemours™ materials in medical applications involving implantation in the human body or contact with internal body fluids or tissues unless agreed to by Seller in a written agreement covering such use. For further information, please contact your Chemours representative. These products may not be directly added to food, pharmaceuticals, cosmetics, or cigarette papers/filters for tobacco products.

For medical emergencies, spills, or other critical situations, call (844) 773-2436 within the United States. For those outside of the United States, call (302) 773-1000. The information set forth herein is furnished free of charge and based on technical data that Chemours believes to be reliable. It is intended for use by persons having technical skill, at their own discretion and risk. The handling precaution information contained herein is given with the understanding that those using it will satisfy themselves that their particular conditions of use present no health or safety hazards. Because conditions of product use are outside our control, Chemours makes no warranties, express or implied, and assumes no liability in connection with any use of this information. As with any material, evaluation of any compound under end-use conditions prior to specification is essential. Nothing herein is to be taken as a license to operate under or a recommendation to infringe any patents.

NO PART OF THIS MATERIAL MAY BE REPRODUCED, STORED IN A RETRIEVAL SYSTEM OR TRANSMITTED IN ANY FORM OR BY ANY MEANS ELECTRONIC, MECHANICAL, PHOTOCOPYING, RECORDING OR OTHERWISE WITHOUT THE PRIOR WRITTEN PERMISSION OF CHEMOURS.

For more information, visit www.tipure.com

