

DuPont™ Ti-Pure® R-746

TITANIUM DIOXIDE

Product Description

DuPont™ Ti-Pure® R-746 is a multipurpose rutile titanium dioxide slurry of Ti-Pure® R-706, 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 water-borne systems. The properties of R-746 are listed in **Table 1**.

Table 1
Analysis and Physical Properties of
Ti-Pure® R-746

Property (Dry Counterparts)	R-746
Solids, wt%	76.5
Grit Unbrushed, wt%, 325 Mesh Oversized	0.010
Grit Brushed, wt%, 325 Mesh Oversized	0.001
Slurry Density, lb/gal	19.4
Pigment, lb/gal	14.9
Slurry, pH	8.5
Viscosity, Brookfield at 100 rpm, cP	150
Rheology, Hercules Deflection at 500 rpm, cm	1.2
Emulsion Gloss, 60° at 27 PVC	NA
Emulsion Gloss, 20° at 18 PVC	59
Biocide, Nonmercuric, Nonformaldehyde Releasing	Yes

Note: All values are typical unless otherwise specified. Test methods used to determine the reported data are available through your Ti-Pure® sales or technical service representative.

Key Features

- High gloss
- Good hiding
- Blue undertone

High Gloss

Careful control of the TiO₂ particle size during manufacture of R-746 results in exceptional gloss performance. R-746 has a tight particle size distribution, resulting in less oversized particles that detract from gloss.

Good Hiding

The low surface oxide treatment levels result in a high TiO₂ content for R-746, contributing to good hiding. The mean particle size of R-746 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 R-746 imparts a brighter, cleaner tint.

Industrial Hygiene

If this product is allowed to dry, dust may form. Follow all local and federal governmental regulations* and recommendations for exposure limits/guidance as described in the DuPont Material Safety Data Sheet (MSDS). Avoid breathing dust. In emergencies or if the potential exists for dust levels to exceed recommended exposure limits/guidance for dust or dried-down product, NIOSH-approved air-purifying respirators with particulate filters (Type 100) should be used.

As a matter of good industrial hygiene, gloves and safety glasses with side shields, or better eye protection, should be worn when handling TiO₂. Wash thoroughly after handling. For more details refer to the MSDS.

* Due to changing governmental regulations, such as those in the Department of Transportation, Department of Labor, U.S. Environmental Protection Agency, and the Food and Drug Administration, references herein to governmental requirements may be superseded. Each user should consult and follow the current governmental regulations such as: Hazards Classifications, Labeling, Food Use Clearances, Worker Exposure Limitations, and Waste Disposal Procedures for the products described in this literature.

First Aid

- If large amounts of TiO₂ are inhaled, remove victim to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.
- In case of eye contact, immediately flush with water for at least 15 minutes. Call a physician. In case of skin contact, the compound is not likely to be hazardous but cleaning the skin after use is advised.

Shipping Containers

Ti-Pure® R-746 is available in rail cars of approximately 50 tons TiO₂ and tank trucks of 15 tons TiO₂. Call Customer Service for more information.

DuPont Titanium Technologies

www.titanium.dupont.com

Product safety information is available upon request. This information corresponds to our current knowledge on the subject. It is offered solely to provide possible suggestions for your own determinations. It is not intended, however, to substitute for any testing you may need to conduct to determine for yourself the suitability of our products for your particular purposes. It is the user's responsibility to determine the level of risk and the proper protective equipment needed for the user's particular purposes. This information may be subject to revision as new knowledge and experience becomes available. Since we cannot anticipate all variations in actual end-use conditions, DUPONT MAKES NO WARRANTIES AND ASSUMES NO LIABILITY IN CONNECTION WITH ANY USE OF THIS INFORMATION. Nothing in this publication is to be considered as a license to operate under or a recommendation to infringe any trademark or patent right.

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