

DuPont™ Ti-Pure® R-931

Titanium Dioxide

Product Description

Ti-Pure® R-931 is a rutile titanium dioxide pigment designed to provide maximum hiding in high-quality, high-PVC architectural coatings. It is manufactured by the chloride process and has the following general properties.

Table 1
Analysis and Physical Properties of
Ti-Pure® R-931

Property	R-931
TiO ₂ , wt%, min.	80
Alumina, wt%	6.4
Amorphous Silica, wt%	10.2
Specific Gravity	3.6
Bulking Value, L/kg (gal/lb)	0.275 (0.033)
Organic Treatment	No
Color CIE L*	100.0
Median Particle Size, μm	0.55
Oil Absorption	35.9
pH	8.9
Resistance at 30°C (86°F) (1,000 ohm)	4
Carbon Black Undertone	9.8

Note: All values are typical unless otherwise specified.

Suggestions for Use

Ti-Pure® R-931 is a pigment with an excellent balance of hiding power and film integrity in emulsion and solvent flat paints. It is most efficient in coatings of 45–60 PVC with TiO₂ loading of 2 lb/gal (0.24 kg/L) or higher. The surface oxide treatment provides optical spacing in crowded systems, so that TiO₂ efficiency is maximized while maintaining the highest level of film integrity.

Safety Precautions

- Titanium dioxide is classified as a nuisance dust. Follow all local regulations and DuPont recommendations for exposure limits as described in the Material Safety Data Sheet (MSDS). If the recommended exposure limits of TiO₂ are to be exceeded, NIOSH-approved air-purifying respirators with particulate filters 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. For more details, refer to the MSDS.

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-931 is available in 50-lb (25-kg) paper bags and semibulk container (1,500 lb). Truckload shipments of the dry product are available directly from DuPont. Less-than-truckload volumes are available through one of the authorized DuPont distributors. Call your local sales office (see back cover) for the distributor nearest you.

Water slurries are available in some regions in truckload shipments (13 metric ton) and railcars (57 metric ton).

Product Storage

The shelf life of DuPont™ Ti-Pure® TiO₂ is indefinite as long as the material is kept from direct contact with moisture.

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