

Titanium Dioxide

Titanium Dioxide is a pigment marketed in rutile or anatase crystal forms. The rutile form is the main driver, with approximately 90% of the market compared with 10% for the anatase form. The different properties of the two forms mean that they are often preferred for different applications. Coatings, plastics and decorative laminates are the main markets associated with rutile form pigment. Rutile form pigments can be produced via the sulphate process using sulphuric acid or the chloride process using chlorine. The chloride process is more expensive and is mostly used in the US. In Europe, around 70% of the market uses the sulphate process and only about 30% (mainly in Western Europe) uses the chloride process. In the lower cost, and generally lower priced anatase sector, paper is the main application, but other end-uses include food and cosmetics. The main end-use industries are split as follows: paints (57-60%), plastics (20-22%) and paper (10-12%). The properties of titanium dioxide that lend themselves to these industries are its brightness, whiteness and opacity. There is little differentiation in end-use markets according to the production route employed, the main one being that printing inks applications prefer pigment produced through the sulphate process. The anatase crystal form can only be produced via the sulphate process.

ICIS pricing quotes titanium dioxide **Europe, North America** and **Asia** in a combined report.

Frequency:

Published weekly on Fridays

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Weekly Price Assessments:

- FD NWE quarterly contract (EUR/KG & conversion to US CTS/LB)
- FD N AMERICA quarterly contract (USD/LB & conversion to US CTS/LB)
- CFR ASIA (USD/MT & conversion to US CTS/LB)

General Information

Assessment window: Price assessments are based on information supplied by market participants through the week up to the close of business on Fridays at 1700 hours in London, Singapore and Houston.

Specification: Rutile form pigment produced through the sulphate or chloride processes. Anatase form pigment is mentioned where appropriate, but does not form the basis for price assessments.

Timing: In Asia, cargoes loading or delivered four-six weeks forward from the date of publication.



Terms: 30-60 days after bill of lading date.

Standard Cargo Size: In domestic overland business titanium dioxide is typically sold in 20-25 tonne/delivery bulk tankers or trucks (bagged). Deep-sea export shipments are maximum 100 tonnes each.

Assessment Basis: The titanium dioxide report predominantly covers the rutile form, which forms the basis for price quotations. Anatase form, which is generally cheaper, receives textual coverage where appropriate. The commentary includes developments impacting on supply/demand balances, price movements, production information where applicable, import/export trends and the evolution of up and downstream markets. Price movements in the report are based on weekly consultations across the spectrum of market participants including producers, distributors and consumers, in particular those in the paints, plastics and paper industries. In assessing price movements, confirmation from both buyers and sellers is the preferred practice, but partially confirmed transactions and reported deals also form a basis for consideration at the editor's discretion. In North America, the price assessment is based on business done by small to mid-range buyers purchasing 1-3 million lbs/year.

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