
INTERNATIONAL STANDARD



591

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

Titanium dioxide pigments for paints

Pigments de dioxyde de titane pour peintures

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FOREWORD

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO member bodies). The work of developing International Standards is carried out through ISO technical committees. Every member body interested in a subject for which a technical committee has been set up has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council.

International Standard ISO 591 was drawn up by Technical Committee ISO/TC 35, *Paints and varnishes*, and was circulated to the member bodies in May 1975.

It has been approved by the member bodies of the following countries :

Austria	Israel	Sweden
Brazil	Mexico	Switzerland
Bulgaria	New Zealand	Turkey
France	Poland	United Kingdom
Germany	Portugal	Yugoslavia
India	Romania	
Iran	South Africa, Rep. of	

The member body of the following country expressed disapproval of the document on technical grounds :

Netherlands

This International Standard cancels and replaces ISO Recommendation R 591-1967, of which it constitutes a technical revision.

Titanium dioxide pigments for paints

1 SCOPE AND FIELD OF APPLICATION

This International Standard specifies the requirements and the corresponding methods of test for titanium dioxide pigments, suitable for use in paints and related products.

2 REFERENCES

ISO 787, *General methods of test for pigments.*

ISO 842, *Raw materials for paints and varnishes — Sampling.*

3 DESCRIPTION

The material shall consist essentially of titanium dioxide (TiO_2) of the anatase or the rutile crystal structure, as determined by X-ray examination. The material shall be in the form of a soft dry powder or in such a condition that it may be readily reduced thereto by crushing under a palette knife, without any grinding action.

4 CLASSIFICATION

4.1 Types

This International Standard covers two types of titanium dioxide pigments as follows :

Type A : Anatase type

Type R : Rutile type

4.2 Grades

The pigments are further classified into the following grades :

Grade A1	}	Type A
Grade A2		

Grade R1	}	Type R
Grade R2		
Grade R3		

5 REQUIRED CHARACTERISTICS AND THEIR TOLERANCES

Titanium dioxide pigments shall have the characteristics indicated for their type and grade in the table. The requirement for matter volatile at 105 °C after preconditioning shall only apply if this characteristic is specified by the interested parties or in a contract.

6 SAMPLING

A representative sample of the pigment to be tested shall be taken as specified in ISO 842.