

TITANIUM DIOXIDE USED IN PHARMACEUTICAL INDUSTRIES



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ISO 9001 : 2015 & AEO T1 Certified

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URS : UKAS

Titanium Dioxide, IP/BP/EP/USP/JP : In Pharmaceutical Industries

Introduction :

- It occupies the most Vital Role and plays an essential Role, from Colouring to Packaging, at all stages of a Pharmaceutical product's Lifecycle.
- It meets the most stringent of requirements governing the safety of Medicines, including those set by IP, BP, EP, JP & also USP.
- It performs a number of Important Functions that apply to all stages of a Pharma product's lifecycle,
 - From protecting the ingredients,
 - To making a Medicine easier to identify or take.
- It serves the following functions,



➤ As a Pigment :

It is used to add whiteness or accentuate the boldness of other colours.

It helps tablets stand out for both Medical Professionals and Patients, to differentiate the strengths of the same Medication.

➤ In Coatings :

It is an essential component of the Tablet Coating, necessary to preserve the Safety, Efficacy and Quality of the Active Pharmaceutical Ingredient (APIs), and to provide Shelf-Life Stability.

It offers protection for Photosensitive Ingredients, which could be damaged by visible light, and also offer protection to the APIs / Ingredients that may be vulnerable to Ultraviolet (UV) light degradation.

➤ In Packaging :

It is widely used in protective films for Tablet Strips and Blisters, as well as in external Cartons.

This is because of its ability to scatter light and absorb UV rays, means it is routinely incorporated in the packagings of Medicines to maintain Shelf Life and prevent any Premature Degradation from Moisture, Heat or Light.

Examples of Pharmaceutical Industries, in which Titanium Dioxide is used

Applications

- It is used in almost all Pharmaceutical Formulation because of its following characteristics ;
 - It adds Whiteness to Tablets & Capsules.
 - It is used to accentuate the Boldness of other Colours.
 - To differentiate the different strengths of the same Medicines.
 - In the coating it is used to preserve the Safety, Efficacy & Quality of the APIs.
 - It also provides Shelf Life Stability.
 - It offers Protection for Photosensitive Ingredients.
 - It is used in packaging of Medicines to maintain Shelf Life and prevent any Premature Degradation from Moisture, Heat or Light.



Ointment

Examples : Tablets, Capsules, Pharma Pellets, Empty Hard Gelatin Capsule (EHGC), Ointments, Medical Sticky Tapes & Packaging like Strips & Blisters etc.



Tablets



Capsules



EHGC



Pharma Pellets



Medical Sticky Tapes



Blister Packaging



Strip Packaging