# SiSiB® FT0050 Fumed Titanium Dioxide

## INTRODUCTION

SiSiB® FT0050 is a titanium dioxide ($TiO_2$) produced through a pyrolysis process. It features ultra-fine particles, high purity, a large specific surface area, and a unique anatase-rutile mixed crystal structure. SiSiB® FT0050 is primarily used in catalysis and photocatalysis, and it also serves as an effective UV filter.

## PHYSICAL PROPERTIES

| | |
|---|---|
| Specific surface area (BET, $m^2/g$) | 35-65 |
| pH-Value (in 4 % dispersion) | 3.5-4.5 |
| TiO2 Content | > 99.5% |
| Loss on drying, (105°C, 2h) wt.% | ≤1.5% |
| Ignition loss (1000°C, 2h), wt.% | ≤2.5% |
| Tamped density | 100-180g / l |
| Crystal Structure | Anatase and Rutile mixed |

## APPLICATIONS

SiSiB® FT0050, with its optimized anatase-to-rutile crystal ratio, is highly suitable for catalytic applications, particularly in photocatalysis.

SiSiB® FT0050 is used as an efficient catalyst support, offering excellent thermal and hydrothermal stability.

SiSiB® FT0050 enhances self-cleaning properties in construction materials through its photocatalytic activity.

SiSiB® FT0050 acts as a heat stabilizer in silicone rubber systems, improving resistance to thermal degradation.

SiSiB® FT0050 functions as a photoactive material in high-efficiency dye-sensitized solar cells (DSSCs).

SiSiB® FT0050 is applied in the dry coating of cathode materials for lithium-ion batteries, enhancing performance and extending cycle life.

SiSiB® FT0050 serves as an effective UV filter in coatings and polymer formulations.

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**PACKING**

SiSiB® FT0050 is supplied in multiple layer 10 kg bags.

**HANDLING**

This document does not contain the product safety information required for safe use. Before handling, please refer to the product and safety data sheets, as well as container labels, for information on safe usage, physical hazards, and health risks. Safety Data Sheet is available on the website, from the distributor, or by contacting SiSiB customer service.

**STORAGE**

In the original unopened packaging, SiSiB® FS0201 has a shelf life of 24 months under dry conditions.

**NOTE**

All information in the leaflet is based on our present knowledge and experience. We reserve the right to make any changes according to technological progress or further developments. Performance of the product described herein should be verified by testing.

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We disclaim liability for any incidental or consequential damages.