

## HIFULL NT-50

# Nano Titanium Dioxide

NT-50 is titanium dioxide ( $TiO_2$ ) prepared by pyrolysis process. It has ultra-fine particle size, high purity, high specific surface area and unique combination of anatase and rutile mixed crystal structure. This product is applied in the field of catalysis and photocatalysis, it can also be used as an effective UV filter.

## 01 Applications

- Efficient catalyst substrate with good thermal and hydrothermal stability
- Efficient photocatalyst for formulation of self-cleaning construction materials
- Suitable for the construction of efficient dye-sensitized solar cells
- Heat stabilizer and flame retardant for silicone rubbers
- Additive and raw material for ceramic and metal materials as bonding agent, sintering additive, or structural component
- Dry coating of cathode materials in Li-ion batteries to increase performance and service time

## 02 Properties

- Small particle size, high purity, high specific surface area
- Combination of anatase and rutile mixed crystal structure, mainly anatase structure
- Good thermal and chemical stability
- Outstanding catalytic and photocatalytic efficiency
- Photoactive under UV radiation
- Heat-stabilizing effect in silicone elastomers

## 03 Physical & Chemical Data

Properties	Unit	Typical Value	Testing Standard
Specific Surface Area (BET)	$m^2/g$	$50\pm15$	GB/T 20020
pH in 4% dispersion	—	3.5~4.5	GB/T 20020
Loss on drying( 2 hours at 105°C)	%	$\leq 1.5$	GB/T 20020
Loss on ignition (2 hours at 1000°C)	%	$\leq 2.5$	GB/T 20020
$TiO_2$ Content(based on ignited material)	%	$\geq 99.5$	GB/T 19591
Tamped Density	$g/dm^3$	$140\pm40$	GB/T 20020
Crystal Structure	—	Mixed crystal structure	GB/T 19591

※ customized products available for special physical or chemical data