Local Insight, Global Impact

Ultrafine TIO_2 – TTO Series

Ultrafine Particle Size Titanium Dioxide

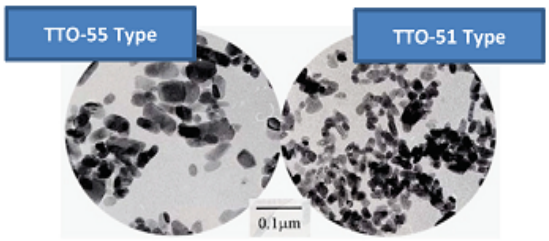
TTO series

TTO series are ultrafine particle size titanium dioxide with the particle sizes of less than 0.1μm, much smaller than pigment type of TiO2. The products show superior transparency, UV-shielding capability and other interesting properties.

1. Characteristics

Grade	*Primary Particle Size (nm)*	*TiO2 contents (%)*	*Surface treatment*	*Surface property*	*Transparency*	*Durability*
TTO-55(B)	30-50	88-94	$Al(OH)_3$	Hydrophilic	○	○
TTO-55(D)	30-50	74-81	ZrO_2, $Al(OH)_3$	Hydrophilic	○	◎
TTO-55(S)	30-50	93-98	$Al(OH)_3$, Organosiloxane	Hydrophobic	○	○
TTO-51(A)	10-30	76-83	$Al(OH)_3$	Hydrophilic	◎	△

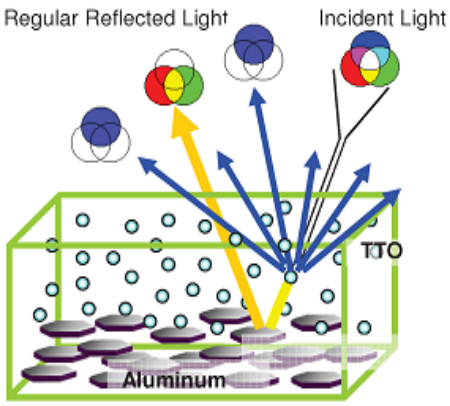
2. TEM Image



3. Applications of TTO-products

- ◆ UV shielding coatings
  >>> Wood coatings etc.
- ◆ Flip-flop effect coatings
  The metallic paint containing ultra-fine TiO2 changes its color from gold to blue by varying the viewing angle.
  >>> Automotive coatings

Image of flip-flop effect coatings



ISHIHARA CORPORATION (U.S.A.)
3-15 Edobori 1-chome, Nishi-ku, Osaka 550-0002, Japan