

TiO₂ Paste – Reflector Anatase

Paste of anatase TiO₂ particles for reflection layer of DSSCs

This type of TiO₂ paste contains relatively large anatase TiO₂ particles, formed as a paste using a solvent and binder. The size of particles is larger than 100 nm and produce high light reflection, which is required for a reflector layer in dye sensitized solar cells. The paste can be applied by blade coating or screen printing. By thermal treatment, at around 100 °C the solvent is evaporated, at below 400 °C the binder is removed and at >500 °C nanocrystals are sintered into a sufficiently good conductivity film.

PST-300A Technical Specifications		
Nanoparticles: TiO ₂ - Anatase	Packaging and Order Number	
Particle Size: >100 nm	PST-300A-1G	1 g
Concentration: 28 wt%	PST-300A-5G	5 g
Physical Form: Paste	PST-300A-10G	10 g
Color: White	PST-300A-20G	20 g
Storage: 2-8 °C		

TiO₂ Paste – Reflector Rutile

Paste of rutile TiO₂ particles for reflection layer of DSSCs

This type of TiO₂ paste contains relatively large rutile TiO₂ particles, formed as a paste using a solvent and binder. The particles size distribution is broad, with typical size of about 300 nm. Rutile TiO₂ has higher refractive index compared to anatase TiO₂, hence showing higher reflection of light. However, in dye sensitize solar cells the smaller bandgap of rutile may reduce the performance of device. The paste can be applied by blade coating or screen printing. By thermal treatment, at around 100 °C the solvent is evaporated, at below 400 °C the binder is removed and at >500 °C particles are sintered.

PST-300R Technical Specifications		
Particles: TiO ₂ - Rutile	Packaging and Order Number	
Particle Size: Around 300 nm	PST-300R-1G	1 g
Concentration: 28 wt%	PST-300R-5G	5 g
Physical Form: Paste	PST-300R-10G	10 g
Color: White	PST-300R-20G	20 g
Storage: 2-8 °C		