

NANO TITANIUM DIOXIDE PQR 200

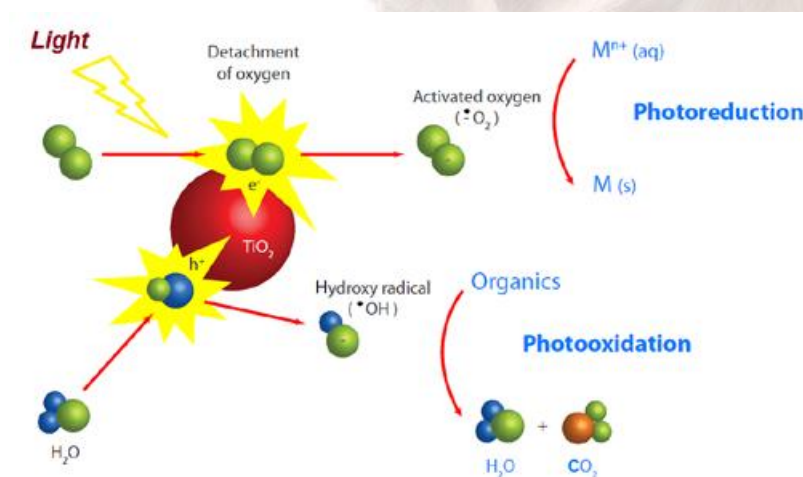
DESCRIPTION

ULTRAFINE TITANIUM DIOXIDE SUSPENSION OF RUTILE FORM

CHARACTERISTICS

Ultrafine nanoparticles in rutile form are present in neutral suspension.

Titanium dioxide particles in nano form catalyse the oxidation of adsorbed molecules in the presence of incident light of adequate photon energy. The light sufficient to induce the photocatalytic effect is in the UV part of the sunlight spectra. The adsorption of the UV light induces charge separation upon which electrons and positive holes form. Both species may act to produce highly active radicals, namely the hydroxyl radical and the superoxide radical. The airborne pollutants molecules may be adsorbed onto the TiO₂ surface and react with these radicals and chemically decompose. Ideally, the photocatalytic reaction leads to the formation of carbon dioxide (CO₂) and water (H₂O).



SPECIFICATIONS

TiO ₂ content	Min 10% in weight
Density	1.1 g/cm ³
pH	6-8
Crystallite size (Scherrer method)	30-40 nm

APPLICATIONS

- photocatalyst used for self-cleaning effect:
- outdoor and indoor use
- self cleaning surfaces,
- glass,
- ceramics,
- self cleaning building fronts.

The information and recommendations indicated on this technical data sheet reflect our current knowledge, laboratory experiments and normal experience. For this reason, our guarantee is limited to the quality of the product supplied. This company shall not assume any liability arising from misuse of our products.

INSTRUCTIONS

Apply the product pure, without dilution, by pulverization in just one lay over the surface of the tile before firing (>800°C). NANO TITANIUM DIOXIDE PQR 200 has a very high performance. It means that the dose must be just the necessary to wet lightly the tile. Recommended dose is 15-20 grams per square meter when is automatically applied. This dose may be increased after initial industrial tests.

RECOMMENDATIONS

It is advisable to test the product prior to its massive application.

STORAGE

Preserve in its original and closed packaging.

PACKAGING

Available in 60 kg and 170 kg containers.



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