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CCR 200 N

TiO_2 - Photocatalyst

CCR 200 N is a stabilized aqueous suspension of ultrafine Titanium dioxide (TiO_2) with an excellent photocatalytical activity in presence of natural or artificial UV and visible light. Our particle design technology is the basis for the premium product performance in a wide range of applications.

Properties

Designed and optimized for the use as a photocatalyst:

- Ultrafine TiO_2 without pigmentary properties.
- Highly stabilized, neutral pH, white aqueous suspension.
- Rutile crystal structure.
- Degradation of organic and inorganic molecules under UV and visible light.
- Recommended for applications with a neutral or basic pH range.
- Cristal lattice doped with N.
- High photocatalytic activity.

Applications

Main applications are:

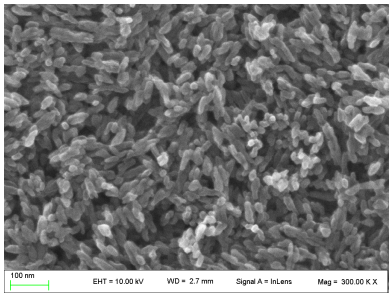
- Indoor and outdoor applications on various building materials and other surfaces, textile, glass, ceramics, …
- Photocatalyst used for self-cleaning effect
- Air and water purification - degradation of NO_X, SO_X, VOC and other organic molecules.
- Removing unpleasant odors and preventing mold, fungi and algae.
- Acting antiviral and antibacterial.

Product characteristics (typical)

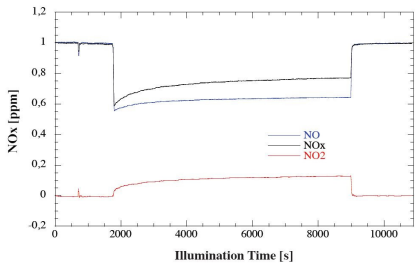
TiO_2 content	Internal method		20 - 22 %
Density	Internal method		~ 1.2 g/cm^3
pH	Internal method		6 - 8
Crystallite size (Scherrer)	Internal method		~ 30 nm
Specific Conductivity	Internal method		< 1 mS/cm
Specific surface area	Internal method		> 60 m^2/g
Typical photocatalytic activity	ISO 22197-1*	Under UV light	22.4 mg NO/m^{2}h
		Under visible light	17.2 mg NO/m^{2}h

* Measurements were performed by Institut für Technische Chemie (Hannover, Germany). A value more than 5.0 mg NO/m^{2}h can be regarded as a very good degradation efficiency

SEM image & Performance chart



SEM image of the **CCR 200 N**



NO degradation rate (ISO 22197-1):
17.2 mg NO/m^{2}h (visible light); 22.4 mg NO/m^{2}h (UV) *

Packaging & Handling

- Available in 50 L (60 kg) or 150 L (170 kg) plastic drums.
- Handling in accordance with the CCR 200 N Safety Data Sheet.
- Shelf life: at least 2 years from the date of production.
- When stored, avoid freezing and overheating.
- Be sure to mix before use (after mixing viscosity will be lower).