

## KRONOClean® 7050

TiO<sub>2</sub>-photocatalyst

degrades pollutants with UV radiation

### Applications

**KRONOClean 7050** is optimised for photoactivity in UV radiation and can be used:

to eliminate unwanted odours (e.g. automotive exhaust gases, kitchen smells)

for air purification (nitrogen oxides, sulphoxides, chlorinated hydrocarbons, and similar) - outdoors

in coatings on plastic films, window profiles, paints, concrete, etc.

for easy-to-clean and self-cleaning of surfaces

### Properties

#### KRONOClean 7050

- is an ultra-fine TiO<sub>2</sub> with no pigmentary properties
- catalyses the degradation of organic and inorganic molecules when irradiated with UV radiation
- is a white powder and has virtually no colouring properties in the quantities generally required
- is resistant towards gases, solvents, mid-range temperatures and pH values between 3 and 11
- suppresses the formation of NO<sub>2</sub> (more than 70 %) compared to conventional TiO<sub>2</sub>-catalysts

### Typical Product Characteristics

TiO <sub>2</sub> -Content (DIN EN ISO 591)	> 85.0 %	
Crystal modification	anatase	
Density (DIN EN ISO 787-10)	3.9 g/cm <sup>3</sup>	
Crystallite size	approx. 15 nm	
Specific surface area (BET)	> 225 m <sup>2</sup> /g	
Bulk density	300 g/l	
Oil absorption <sup>1</sup>	~ 61 g/100 g	
Water demand <sup>1</sup>	~ 280 g/100 g	
Max. processing temperature	500 °C	
Application pH-range	3 – 11	
Typical photocatalytic activity (DIN EN ISO 22197-1)		
	Degradation [µmol/(h · m <sup>2</sup> )]	NO <sub>x</sub>
	UV(A) radiation <sup>2</sup>	596
	Visible light <sup>3</sup>	15

Methods of determination:

<sup>1</sup> internal standard method

<sup>2</sup> Irradiance = 10 W/m<sup>2</sup>

<sup>3</sup> Irradiance = 1700 lux; Part of UV(A) radiation < 11 mW/m<sup>2</sup>

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DS2190EN/615EN

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