

TiO₂ Photokatalyst – breaks down pollutants with light

Areas of Application

Air Balance Pro can be used:

For indoor spaces to reduce pollutants, air contaminants and odors.

Chemical and Physical Properties

Air Balance Pro is TiO₂ without pigment properties. It catalyzes the breakdown of organic molecules when exposed to UV and artificial light. It is a ready-to-use, colorless, transparent coating with a surface-enhancing effect. The pH values range between 3 and 14.

Product Properties/Efficacy

The basis of the **Air Balance Pro** process is photocatalysis. Titanium dioxide (TiO₂) is a semiconductor; light generates electron-hole pairs in it when the energy of the photons is greater than the band gap E_g (internal photoelectric effect). The electrons can reach the surface of the titanium dioxide, generating radicals that break down organic substances. In particular, the hole pairs have a high oxidative effect; OH radicals are formed from water. Organic substances are thereby decomposed, with the end products being CO₂ and water. The special doping allows the system to exhibit photocatalytic action under artificial light with a wavelength range of 380nm to 780 nm, to break down e.g. solvents, plasticizers, ketones, esters, and alcohols.

Substrate Preparation/Processing

The application can be carried out with a roller, brush, HVLP or airless spray systems. The substrate must be free of dirt, organic growth, dust, and oily or greasy contaminants before treatment with **Air Balance Pro**. Use only on intact and undamaged surfaces. Please test small sample areas to check compatibility!

Consumption: 30-50 ml/m², depending on absorbency

Application temperature: +5°C to +40°C

Drying time: 24 hours

Packaging/Shelf Life/Storage

Packaging: 1-liter bottle, 25 kg drum

Shelf life: 1 year when stored properly

Storage: Store in a well-ventilated area. Keep it cool

Safety/Labeling/Toxicology

For detailed information on toxicology, ecology and the proper use and labeling of **Air Balance Pro**, please refer to the safety data sheet.