

# PRESS RELEASE

## Breathe freely with photocatalysis -

Frankfurt/Main, November 2<sup>nd</sup> 2012 – **Photoactive roofs ensure clean air.** 

Photoactive roof tile surfaces are effective against harmful nitrogen oxides ( $NO_x$ ) from exhaust gases in the air. For this purpose a special titanium dioxide ( $TiO_2$ ) photocatalyst is imbedded in the mineral surface. The photocatalyst is not affected or changed by the reactions and thus remains active the whole building material's life.

Photocatalysis is based on a sequence of physical and chemical reactions, which occur on the surface of the catalyst with the aid of light. The conversion of the nitrogen oxides results in harmless nitrates, which are rinsed off with the rain water from the roof and usually are fed back into the natural cycle as nutrients. Thus, photoactive roofing materials contribute to fighting air pollution e. g. as elements of the municipal Clean Air Policy and Planning.

Besides converting these air pollutants photoactive roof tiles are self-cleaning. They reduce the amount of organic compounds such as mosses, lichens and algae by degradation. The residues are flushed away by rain. This self-cleaning effect is considering the preservation of values - a worthwhile aspect of choosing roof building material.





**Above:** The effectiveness of photoactive roofs was proven in extensive field studies.

**Left:** Due to their photocatalytic activity, roofing materials provide clean air and stay clean longer.

## **FAP members:**

BASF SE, Chemische Fabrik Budenheim KG, Dachziegelwerke Nelskamp GmbH, Dyckerhoff AG, Erlus AG, Evonik Industries AG, F. C. Nüdling Betonelemente GmbH + Co. KG, Ferro GmbH, GXC Coatings GmbH, Harold Scholz & Co. GmbH, HeidelbergCement AG, KEIMFARBEN GmbH, KRONOS Titan GmbH, Monier Braas GmbH, NADICO Technologie GmbH, REMEI Blomberg GmbH & Co. KG, Rockwood Pigments (Brockhues GmbH & Co. KG), SACHTLEBEN Chemie GmbH, Saint-Gobain Weber GmbH, Sto AG

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