



EXOCOAT 151B: Photocatalytic coating for ceramic foams

Application: air purifiers



Breathing easier: How ceramic foams purifies your air

Ever wished you could breathe cleaner air, even indoors? Well, EXOCOAT 151B coated ceramic foams are stepping up to the challenge as a game-changer in air purification technology. This innovative material effectively removes harmful pollutants from the air we breathe.

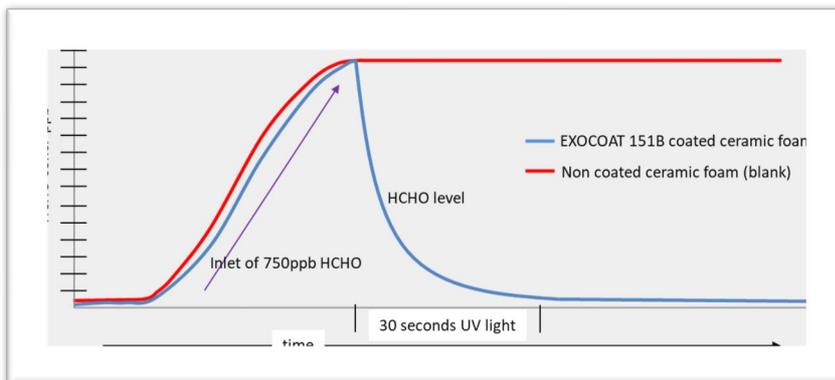
Photocatalytic ceramic foams coated with EXOCOAT 151B

An air purifying ceramic foam (picture right) is essentially a sponge made of ceramics like Aluminates (Al_2O_3) or Silicates (SiO_2) coated with photocatalytic material EXOCOAT 151B. Ceramic foams are highly porous materials with a large surface area, allowing air to flow freely through the material. As air passes through, pollutants get trapped within the pores and are annihilated by the EXOCOAT 151B coating.



Air purifiers (picture above) are generally made of a casing that contains a ceramic foam, a (UV) light source and optionally a fan. (UV-)light is used to enhance the photocatalytic breakdown of air pollutants by EXOCOAT 151B.

Below graph describes the function of the ceramic foam. In an experiment in which we simulate real-world conditions, the foam is exposed to a continuous flow of formaldehyde gas (HCHO). The HCHO amount let in the chamber is 750 ppb, which is approx. 10x the maximum human exposure limit¹. While in the test with the blank (red) the amount of HCHO in the chamber was not reduced, the test with the ceramic foam coated with EXOCOAT 151B (blue) showed the reduction to 0 ppb in only 30 seconds, showing extremely effective photo reduction capacity of the EXOCOAT 151B coated filter.



EXOCOAT 151B

- Photo-active nano titanium dioxide
- Thin liquid coating
- Strong abatement of:
 - o Formaldehyde (HCHO), VOCs
 - o Pollutants

Application: Dip, spray, spin coating
Curing: Room temperature or forced cure up to 600°C
Activation: by UV

¹ USA: [EPA indoor airquality](#)

EU: [ECHA restricts use of formaldehyde](#)



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