

Owens Corning Advantex glass fibre provides superior performance in FRP FGD systems

08 November 2011

“According to Owens Corning, use of fibre reinforced plastic (FRP) made with the company's Advantex® glass fibre in place of steel in flue-gas desulphurisation (FGD) systems in coal-burning power plants reduces concerns over potential shutdowns as a result of corrosion.

Owens Corning reports that the coal power industry is installing FRP chimney liners because the expected service life is significantly higher than other materials with less required maintenance.

“We may see that number grow with the Cross-State Air Pollution Rule (CSAPR) taking effect Jan.1, 2012, and other rules requiring significant reductions in sulphur dioxide emissions,” reports Matt Lieser, Owens Corning global specification marketing leader.

Coal-burning power plants have installed scrubbers to help reduce pollution by catching sulphur dioxide (SO₂) which is easily oxidised into sulphuric acid when oxygen and water are present. Nitrogen oxide (NO_x) is commonly present in combustible processes and is a catalyst for the reaction that causes acid rain. Testing conducted by Owens Corning on standard E-glass and Advantex composite laminates under stress in a 10% sulphuric acid environment found that the Advantex composite laminate offers a useful stress performance of up to 12 times greater than the E-glass composite.”