



Protect floor coverings from the ground up

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### **BLOCKING MOISTURE VAPOR**

Merritt Properties, LLC, needed to replace conductive tiles that had lifted and peeled because of moisture vapor on a slab-on-grade application. The 6500 ft<sup>2</sup> (604 m<sup>2</sup>) laboratory computer room had a controlled humidity environment, and the floors and walls were grounded with a copper grid system for conductivity. The original tiles were removed, and the new tiles which blistered, had to be removed two months after installation. ASTM E1907 Calcium Chloride Tests were run on the floor; an average of 6 tests showed moisture vapor levels of 8 to 9 lb/1000 ft<sup>2</sup>/24 h (39 to 44 kg/1000 m<sup>2</sup>/24 h) on bare concrete. The tile adhesive and tile manufacturer required less than 3 lb/1000 ft<sup>2</sup>/24 h (14 kg/1000 m<sup>2</sup>/24 h) to approve the floor for tile installation.

Merritt Properties, LLC, specified the MoistureBloc™ Vapor Reduction System to protect the adhesives in the reinstallation of the conductive tile system. The contractor, Consolidated Coatings of Baltimore, Md., applied 2 coats of MoistureBloc™ Voc Primer Step 1 at 90 degree angles to each other at 250 ft<sup>2</sup>/gal. (6 m<sup>2</sup>/L); the total coverage rate was 125 ft<sup>2</sup>/gal. (3 m<sup>2</sup>/L). Each coat was allowed to dry overnight. A final coat of MoistureBloc™ Voc Top Coat Step 2 was applied at 250 ft<sup>2</sup>/gal. ASTM E1907 Calcium Chloride Tests were rerun for 3 days, and the average was below 2 lb/1000 ft<sup>2</sup>/24 h (9.8 kg/1000 m<sup>2</sup>/24 h). The Vexcon MoistureBloc™ Vapor Reduction System can withstand 576 psi (4 MPa) of hydrostatic water pressure and costs the contractor approximately \$.30/ ft<sup>2</sup>. The system can be used as a preventative application on concrete floors or grade that have the possibility of water vapor transmission problems.