

Concrete Floor Sealing

In mission critical facilities, contamination is an ongoing challenge. Contaminants can originate from virtually anywhere, but the result is always the same—they can disrupt the continuous operation of computer hardware. In fact, when high levels of contamination are reached, the possibility of equipment failure and data input/output errors increases dramatically.

Many mission critical facilities use the area below the raised access flooring (the sub-floor) for the supply air plenum. The sub-floor in these facilities is pressurized by forced conditioned air that enters the facility through perforated floor tiles. Because all of the air that enters the facility must travel through the sub-floor, it is imperative that this area be kept extremely clean. While many mission critical facility managers realize this and routinely have the sub-floor area cleaned, many overlook the importance of properly sealing the concrete floor.

Sealing the concrete floor underneath the raised access flooring serves two purposes: it reduces the contamination that may have settled in the sub-floor and it eliminates concrete shedding.

Contamination may, at some point, settle in remote areas of the sub-floor. Contaminants may even remain there, unmoved and unable to be seen by the naked eye, for quite some time. But, as the facility experiences hardware installations and reconfigurations, that contamination may be disturbed and find its way into the airflow. We recommend that the sub-floor be cleaned and the concrete floor be sealed after any installations or reconfigurations that require sub-floor work. The sealing will prevent any contamination that was missed in the cleaning process from being able to be disturbed in the future.

A unique characteristic of concrete floors is that they shed fine dust particles over time and are susceptible to efflorescence (mineral salts brought to the surface of the deck through evaporation or hydrostatic pressure). Properly sealing the concrete floor eliminates the ability of the floor to shed.

Sealing the concrete floor in a mission critical facility is vital to maintaining the high level of cleanliness that the facility requires. But, when is the best time to seal the concrete floor? Our extensive experience indicates that the floor should be sealed after the raised access flooring is installed. While it may seem obvious to seal the floor before the flooring is installed (for convenience reasons), the installation itself creates a great deal of dust. And while most of the dust is able to be cleaned up by vacuums, the facility again runs the risk of unseen particles settling in the sub-floor area. By sealing the concrete floor after the flooring has been installed, this risk is reduced—if not eliminated completely.

For more information on the benefits of concrete floor sealing and how it can help you maintain the level of cleanliness that that your facility requires, contact an Access Floor expert at Bick by emailing: rmahoney@bickgroup.com