



TECHNICAL BULLETIN CP-21

SOLVENT BASED SEALER ODOR TECHNICAL TIP

Problem: I used a solvent based sealer or coating in my house and the solvent odor is still strong after a week. Why can I still smell the solvent and what can I do now to get rid of the odor?

Answer: The solvent used in solvent-based sealers and coatings becomes dispersed in air as it evaporates from the sealed surface. Evaporation is where the liquid portion of the product changes from being a liquid to being a gas. Just because the solvent evaporates doesn't mean it disappears altogether. For example, liquid water and steam are both still water, they just have slightly different properties. During the process of evaporation, another process occurs called dispersion. The best illustration of dispersion is when you take a bottle of perfume and open it in one corner of the room. Within a few seconds, you can smell that perfume clear across the room, even if the bottle has not been moved. That is because the perfume has changed state from liquid to gas, and then been dispersed (mixed in) with the rest of the air in the room. As the air flows through the room, it carries the odor of the perfume with it. Once you close the bottle of perfume, you will notice that the odor dissipates completely within a few moments. That is because as the perfume vapor mixes with the air in the room, it becomes less concentrated and you'll smell less of it. This is what happens as the sealer or coating dries. Eventually all of the liquid solvent will evaporate and be dispersed, and there should be no odor remaining.

However, if a sealer or coating is applied too heavily, or in closed conditions with little or no air movement in and out, or it is applied when the humidity is high, the time for the solvent to evaporate and disperse can be very long. The best thing that you can do before applying the product is to create conditions in your home which would encourage a more rapid drying of the sealer.

It is best to apply a sealer or paint/coating when the humidity is low. When the humidity is high, air has a harder time picking up excess solvent from the product, thus slowing the drying process. If you can't wait until there is less humidity, you could purchase or rent a dehumidifier and place it in the room where the product is to be applied. You can also use fans to help dry the sealer or coating. Fans serve several purposes: 1) air that is moving has a greater capacity to pick up the evaporated solvent; and 2) in conjunction with open windows, fans help move the inside air to the outside where it can disperse even more rapidly, and they can help bring in fresh air from the outside. The process of moving air through a room is called "air exchange," and the more air exchanges you can accomplish, the faster you will remove the irritating solvent odor. To remove the solvent odor now, open as many windows as possible and set up fans to push the evaporated solvent out and move fresh air in. The time it will take to remove the odor cannot be predicted and will depend on the air exchange rate as described above.

For sealing or coating concrete on interior projects, we recommend the use of a low-odor water based product or a coating with a 100% solids content that contains no water or solvent at all. Always follow the instructions on the product technical data sheet and consult the SDS before use.