Workbook

Explore the Benefits of the Latest Solutions

Coatings include permanent paint-on and epoxy applications as well as temporary spray-on coatings.

5 REASONS TO IMPLEMENT HVAC COATINGS

The experts at Controlled Release Technologies share why HVAC professionals should always start with coatings.

By Colleen DeHart

Replacing HVAC systems and parts can be a headache. Replacement can be costly, require permits, and lead to lengthy system shutdowns. But the proper HVAC coatings from **Controlled Release Technologies** can alleviate these common problems, ultimately saving time and money.

The company, which got its start in the 1980s as the first producer of an HVAC condensate pan cleaner, has a "do-it-yourself" philosophy, according to **Rachelle Cunningham**, assistant executive director. "We like to help by developing products that make facility managers' jobs easier," she says. "We make good quality products in-house that offer easy solutions. We want everyone to be satisfied."

By producing all products in-house, Controlled Release Technologies guarantees the best ingredients and avoids using fillers that often lead to clogged equipment and other issues. "We know maintenance people are busy juggling a lot of projects. We like to offer them reliable and user-friendly products by not cutting corners," Cunningham says.

It's that reliability that has kept **Kevin Uilkie**, owner of **KM Facility Services**, a loyal user for 18 years. "Throughout the years their products have saved my customers a lot of money and time," he says. "Their coatings are a permanent fix, not a temporary one, and they are proven. It is all I will use." The pan coating Uilkie first applied 18 years ago is still in use today, he says.

The coatings come in a few forms—permanent paint-on and epoxy applications as well as a temporary spray-on coating for coils. The different coatings can be used on the metal parts of the HVAC system, including the pans and coils, as well as drywall and insulation. Use of the coatings has a variety of benefits, including:

1 Increased Efficiency. Dirty coils can result in higher energy bills, shorter equipment life, and lower air quality. Controlled Release Technologies carries a sprayable coating—a non-permanent coating—that can be easily applied to evaporator coils. When applied annually, it works to keep the coils clean by inhibiting the buildup of debris, including dust and mold. It reduces the need to use harsh corrosive chemicals to clean the coils and acts as a protectant, increasing the life of the equipment. The product, called **First Strike Micro Coat**, is certified GREEN and does not inhibit the transfer of heat.

PHOTOS: COURTESY OF CONTROLLED RELEASE TECHNOLOGIES

2 Preventing Mold. Insulation can be a prime breeding ground for mold. HVAC systems are generally located in dark, humid rooms causing moisture to get trapped in the insulation—the perfect environment for mold growth. Applying **Bioflex**, a paint-on coating, to ductwork, walls, and ceilings of the equipment room encapsulates the system and prevents mold growth. The insulation coating also prevents fiberglass emissions from getting into the airstream, thus improving air quality. "There is no chance for mold to grow and no chance for fiberglass to get into the air," Cunningham says.

Using the epoxy coating **V570** on the metal parts of the HVAC system also works to fill in any holes that may have been formed during the corrosion process, reducing crevices for mold to breed. The condensate pan is a common place for mold to grow as it consistently has a pool of water. Applying the pan coating **Pancrete** will fill holes and level the pan out. "So you won't have a little swamp in your pan," Cunningham says.

Annual application of the coil coating will also assist in reducing mold growth, as mold will be unable to plant itself onto the coil.

3 Stopping Corrosion. Many metals that claim to be corrosion-resistant will still start to corrode after prolonged exposure to moisture. Without proper care of those metals, parts of the HVAC system will start to fall apart as a result, Cunningham says.

Application of a coating on the inside of the air handler will help to stop—or prevent, if used ahead of time—corrosion in its tracks. The coating encapsulates the metal parts and prevents moisture from getting to them. Before applying the coating, it's recommended users try to get rid of as much of the rust as possible so parts do not continue to corrode under the coating. Applying to a clean, flake-free surface will allow the coating to properly adhere to the surface.

4 Reducing Unplanned Downtime. Depending on the facility and where the HVAC system is located, replacement of parts or the system itself can be a long, complicated process. "The air handler is usually one of the first things put into a building. The walls will go up around it. It's put up before the drywall, in the skeleton of the building. Sometimes you can't get the pieces out," Cunningham says. If the system is on the roof of a high-rise it can require permits, street closures, and cranes to remove equipment. It can lead to days or weeks of unplanned downtime, which can be detrimental to a business as well as uncomfortable for building occupants.

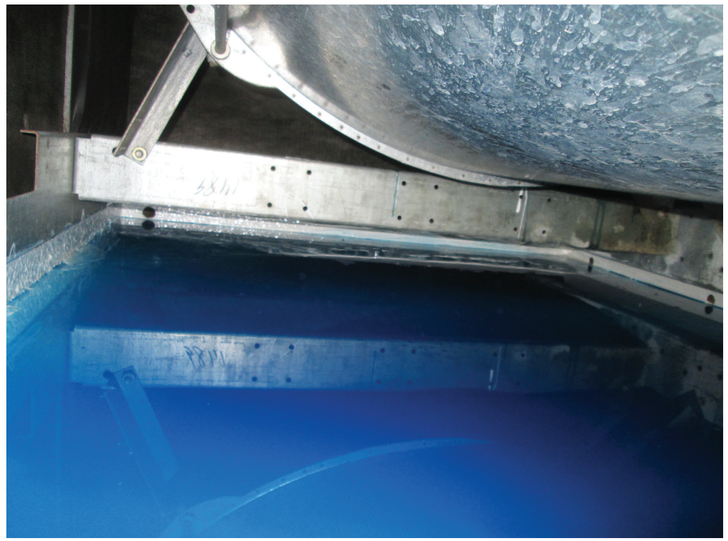
Most of the coatings produced by Controlled Release Technologies cure in four to six hours, drastically reducing system downtime, too. Uilkie used the coatings to repair a system at a hospital he was maintaining. "We came in at night and applied the coating to the condensate pan and there was never a surgical case lost or canceled due to the system being down," he says. "Downtime is so minimal compared to replacement, and it is a permanent fix."

DID YOU KNOW?

HVAC COATINGS CAN **EXTEND THE LIFE** OF EQUIPMENT FOR DECADES BEYOND ITS ORIGINAL LIFE EXPECTANCY.

5 Cutting Replacement and Maintenance Costs. Replacing a system or even an outdated part can be extremely costly. Applying coatings as a preventative measure or as a fix—as they most often are—can increase the life of a system by 10 to 30 years or more. All coatings, except for the coil coating, are permanent solutions. "I have seen coatings that were applied 20 years ago that still look the same as the day they were applied," Cunningham says.

Depending on the air handler's size, the cost of a coating can be about 25% of the cost of replacing the system, Uilkie says. "The beautiful thing about these coatings is a customer might not have the capital to replace the system but they always have money in a repair budget, which a coating would fall under."



Proper coatings can prevent mold and stop corrosion.