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**Attention: Editor**

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**PRESS RELEASE**



## VpCI® Packaging to the Rescue for Insidious Condensation Corrosion

Condensation corrosion is an insidious problem that can easily catch manufacturers off guard. Even in environments that do not seem otherwise harsh, extreme temperature swings can cause airborne moisture to condense and cause corrosion on unprotected metal surfaces.

Cortec® VpCI® packaging solutions are a simple and effective way to guard against this problem. Protection can be as easy as wrapping a piece of CorShield® VpCI®-146 paper around an individual metal part or interleaving it between sheets of new steel. In other cases, the best solution may be to wrap metal parts in VpCI®-126 film with a Bio-Pad® inserted in the package. Contact and Vapor phase Corrosion Inhibitors in the packaging materials form a protective molecular layer on the surface of the metal.



Cortec® Laboratories was able to test the efficacy of CorShield® VpCI®-146 against condensation corrosion when a steel manufacturer noticed corrosion on its galvanized steel plates after winter shipment. It was suspected that corrosion was caused by condensation as the steel plates were taken out of one warm warehouse, into cold outdoor temperatures for shipment, then back inside another warm warehouse upon arrival at the shipping destination.



No protection



Protected with VpCI®-146 paper

To simulate the warm-cold cycles and find a protective solution, Cortec® Laboratories stacked galvanized sheet metal with VpCI®-146 paper layered in between the individual steel panels. The lab moved the panels back and forth between a freezer (at approximately -31°F [-35°C]) and a warmer non-temperature-controlled environment to promote condensation cycles daily. By the end of the two-week trial, white rust had formed on the top and bottom panels, where there had been no protective paper. However, surfaces between the plates (where the VpCI®-146 showed signs of alternate water saturation and drying from condensation) had been protected.

[In another case\\*](#), a Midwest gear manufacturer had corrosion problems on gears going in and out of a climate-controlled quality control department. The corrosion was likely caused by a variety of factors, including condensation of airborne moisture and the settling of other airborne contaminants on the gears as they waited in between process steps. Cortec® was able to recommend a simple solution of wrapping the gear racks in VpCI®-126 CorrCaps and placing Bio-Pads



inside various process racks where an extra dose of VpCI® chemistry might be needed. The customer was satisfied with the solution and appreciated Cortec's evaluation of the entire process.

Condensation corrosion is an unwelcome surprise for manufacturers and end users. Fortunately, VpCI® packaging comes to the rescue as an easy solution to avoiding the corrosion that comes from condensation or other environmental factors!

To learn more about CorShield® VpCI®-146, please visit:

<https://www.cortecpackaging.com/product/corshield-vpci-146/>

To learn more about VpCI®-126 film, please visit:

<https://www.cortecpackaging.com/product/vpci-126-blue/>

To learn more about CorrCap™ VpCI® Protective Covers, please visit:

<https://www.cortecpackaging.com/product/corrcap-vpci-protective-cover-2/>

To learn more about Bio-Pad®, please visit:

<https://www.cortecpackaging.com/product/bio-pad/>

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Cortec® Corporation is the global leader in innovative, environmentally responsible VpCI® and MCI® corrosion control technologies for Packaging, Metalworking, Construction, Electronics, Water Treatment, Oil & Gas, and other industries. Our relentless dedication to sustainability, quality, service, and support is unmatched in the industry. Headquartered in St. Paul, Minnesota, Cortec® manufactures over 400 products distributed worldwide. ISO 9001, ISO 14001:2004, & ISO 17025 Certified.

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