

Editorial Contact:
Cortec® Advertising Agency:

Shannon Garrow
(651) 429-1100 Ext. 1128

sgarrow@cortecvci.com

Company Contact:
Cortec® Corporation

Jay Zhang
(651) 429-1100 Ext. 1150

jzhang@cortecvci.com

Technical Contact:
Cortec® Corporation

Ming Shen
(651) 429-1100 Ext. 1166

mshen@cortecvci.com



Attention: Editor

October 2, 2016

PRESS RELEASE



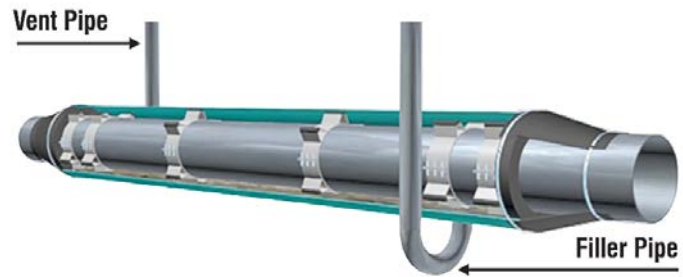
Cortec's Exceptional, Environmentally Friendly Pipeline Casing Filler Product is Now Patented!

Cortec® is pleased to announce the patent of CorroLogic® VpCI® Filler, an innovative product developed to fill and protect the inside of closed environments from corrosion for long periods of time!

At the request of a North American pipeline corrosion engineering group, Cortec® began developing this special product specifically for the protection of annular void spaces between pipelines and their casings. Over the course of the project, Cortec® was able to develop an excellent environmentally friendly solution for this challenging area of corrosion protection. The resulting product can also be applied to the inside of tubular tower structures and other closed environments for long-term protection. As Cortec® approaches the verge of receiving this significant patent, the product's importance is affirmed by a growing market realization of the innovative way CorroLogic® VpCI® Filler meets a distinctive need.



CorroLogic® VpCI® Filler is a two-part system that combines a liquid VpCI® concentrate with a powder gelling agent. After the liquid VpCI® concentrate is mixed with water, the gelling agent is added to the liquid stream as the VpCI® solution is discharged from the tank and pumped into the structure. The product then turns into a gel at a



Cortec® CorroLogic® VpCI® System for Carrier Pipe Corrosion Control

predetermined set time inside the void space being protected. Little or no surface preparation is required, and the product can be removed by washing it off the metal surface. Vapor-phase inhibiting action protects inaccessible and recessed surfaces, or migrates to provide corrosion protection under disbonded coatings.

Important environmentally friendly factors:

- Non-toxic, nitrite-, and phosphate-free
- Made of biodegradable materials
- Non-flammable



CorroLogic® VpCI® Filler is especially good because of its many characteristics that adapt it to the particular needs of pipeline casings. The product contains a unique blend of Cortec® Vapor phase Corrosion Inhibitor Technology while providing resistance to bacterial corrosion. The filler also prevents the infiltration of air and water inside the filled structures. If air, water, and soil do ingress into the annular space, the multiphase corrosion protection will be able

to migrate through various substances to provide liquid, vapor-phase, and interface protection throughout the void.

Since it is electrically conductive, CorroLogic® VpCI® Filler can be effectively used in conjunction with cathodic protection. If cathodic protection fails, the CorroLogic® gel will still provide a source of VpCI® to all exposed internal surfaces. Corrosion protection can be gauged by the installation of corrosion rate monitoring systems to measure effectiveness.

Though it is tailored to meet the needs of pipeline casings in particular, this special gel set filler is adaptable to many applications:

- Filling interstitial spaces inside pipeline casings to mitigate the corrosion of the carrier pipe and the inside of the casing pipe
- Filling the inside of tower support structures to mitigate internal corrosion
- Filling other tubular structures, pipes, and vessels to mitigate internal corrosion

Cortec® looks forward to the upcoming release of the CorroLogic® VpCI® Filler patent and is honored to be officially recognized as the creator of this innovative, exceptional product!

CorroLogic® VpCI® Filler complies with NACE Standard SP0208-2008, from Classes of Rust Preventatives referenced in Mothballing Manual, and meets requirements of NACE SP0200-2014 Standard Practice: Steel Cased Pipeline Practices.

To learn more about CorroLogic® VpCI® Filler, please visit:

http://www.cortecvci.com/Publications/PDS/CorroLogic_VpCI_Filler.pdf

For more information about Cortec's innovative product line, please visit:

<http://www.cortecvci.com/index2.php>

Need a High-Resolution Photo? Please Visit: www.cortecadvertising.com

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.



The brochure for CorroLogic® VpCI® Filler features a top image of industrial storage tanks. The title 'CorroLogic® VpCI® Filler' is prominently displayed with 'Patent Pending' below it. A central photograph shows a worker applying the product to a pipeline. The text describes the product as a 2-part system (liquid VpCI concentrate and powder gelling agent) that creates a monomolecular inhibiting layer on metal surfaces. It lists features such as long-term continuous protection, resistance to vapor-phase and interface corrosion, and ease of removal. The brochure also includes a list of advantages, such as vapor-phase inhibiting action, protection of inaccessible surfaces, and economic benefits compared to other fillers. Compliance with NACE standards SP0208-2008 and SP0200-2014 is noted. The Cortec Corporation logo is at the bottom right.

CorroLogic® VpCI® Filler
Patent Pending

PRODUCT DESCRIPTION
CorroLogic VpCI Filler is a custom designed 2-part product developed to fill the inside of closed environments such as pipeline casings and the inside of tubular tower structures, etc. in order to control corrosion for long time periods. The product contains a unique blend of Cortec Vapor phase Corrosion Inhibitor (VpCI) technology while also providing resistance to bacterial corrosion. The filler also prevents the infiltration of air and water inside the filled structures.

CorroLogic VpCI Filler is a 2-part system consisting of a liquid VpCI concentrate and a powder gelling agent. The liquid VpCI component (Part A) can be diluted on-site to the appropriate concentration. The powder gelling agent (Part B) is added just prior to application and causes an increase in viscosity and ultimately gel formation over a pre-determined time period.

FEATURES

- Creates a monomolecular inhibiting layer on metal surface
- Provides long-term continuous protection from corrosion
- Provides liquid, vapor-phase, and interface protection

ADVANTAGES

- Vapor phase inhibiting action protects inaccessible and recessed surfaces
- If the filled space is subjected to moisture or outside air infiltration, the molecular layer is replenished by continuous vapor redeposition
- Little or no surface preparation is required
- Prevents future corrosion of coated and painted surfaces
- Viscosity and set-up time is controllable
- Provides economical protection from corrosion and reduced shipping costs compared to other filler products
- Product can be removed by washing it off the metal surface

COMPLIANCE

- Complies with NACE Standard SP0208-2008, from Classes of Rust Preventatives referenced in Mothballing Manual
- Meets requirements of NACE SP0200-2014 Standard Practice: Steel Cased Pipeline Practices
- Designed to migrate under disbonded coatings and provide corrosion protection on the metal surface
- Corrosion rate monitoring systems are available to measure the effectiveness of the filler
- Filler is electrically conductive and will allow flow of CP current to the carrier pipe
- Non-flammable
- Non-toxic, nitrate-, and phosphate-free
- Environmentally friendly
- Made of biodegradable materials
- Resists biological attacks

CORTEC CORPORATION
Formulations Made with 100% Natural Ingredients