

# How Zerust® Works for You.

For more than 30 years, Zerust® / Excor® has lead the market in quality corrosion solution products, and is committed to providing expert corrosion management advice to our customers. Zerust users have access to on-site support from Zerust representatives in more than 60 countries. Our customers have peace of mind when they choose Zerust for corrosion control management.

## Zerust Diffuser Series

In addition to traditional VCI film and other packaging products, Zerust offers the ICT® 800 Diffuser Series.

Diffusers provide targeted corrosion protection in hard-to-reach enclosed spaces or can be used as added protection to Zerust packaging products. Diffusers emit powerful Zerust corrosion inhibiting molecules into an enclosure that settle on metal surfaces and protect them from corrosion. They are safe for electronics, odorless\*, non-toxic\*, residue-free, and are designed to work in restricted spaces.

\* ActivPak™ products contain additional inhibitors with a slight odor. See MSDS for details.



Corrosion-free shipment protected by Zerust

## What is VCI (Vapor Corrosion Inhibitors)?

VCI molecules inhibit corrosion by forming a temporary protective layer on the metal surface. This invisible layer prevents moisture and environmental elements from reacting with the metal surface and causing corrosion. Vapor Corrosion Inhibitors or Volatile Corrosion Inhibitors get their name from their invisible vapor that is transported by diffusion.

**“In effect, the ZERUST® VCI corrosion protection applies and removes itself.”**

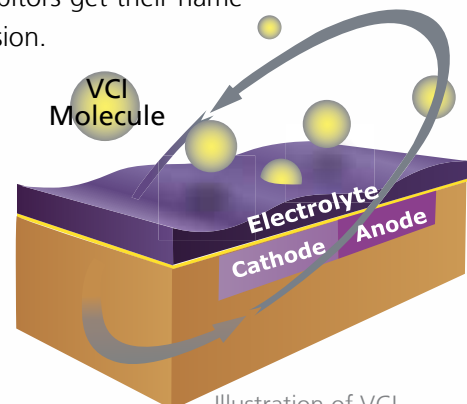


Illustration of VCI Molecules in Action



# How To Install Zerust VCI Diffusers

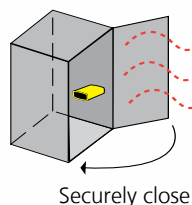
1. To activate, simply take the diffuser out of its packaging.
2. Note the installation date. Vapor Capsule products include a space to mark the date.
3. Place the diffuser in the enclosure following the principles below.
4. Make sure the diffuser has maximum surface space exposed for ideal diffusion.
5. Tightly seal the enclosure to restrict airflow.
6. Metals in the enclosure will be protected for up to two years\* depending on the diffuser.

\* See duration of protection ratings for each product. Products are conservatively rated to protect for the specified amount of time. Duration of protection can vary depending on environmental conditions, metal types, contaminants, and airtightness of the enclosure. For corrosion protection solutions beyond two years, contact your Zerust representative.

Scan Code for  
"How-To" Video



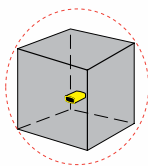
## How to Correctly Place Diffusers in an Enclosure



It is essential to restrict airflow to the container. Airflow may remove the protective vapor from the space faster than it is released from the diffuser.

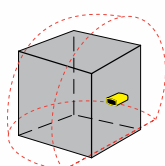
Protection ratings for each product assume a relatively empty enclosure to enable direct diffusion paths. When the enclosure is filled with many dividers or objects that lengthen the VCI diffusion pathways, it is good practice to double the number of diffusers.

Center



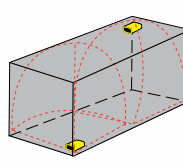
The ideal location is the center of the enclosure.

Sides



Good for most applications, and provides the optimum protection.

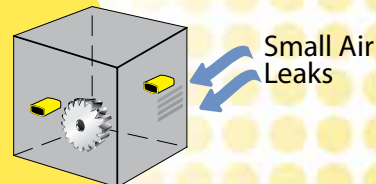
Corners



In large enclosures, two capsules may be placed on diagonally opposed corners to fully protect the entire space.

## How to Contend with Airflow and Corrosive Environments

When small air leaks cannot be avoided, place a capsule close to the source of airflow. For added corrosion protection in cases with small air leaks or in especially corrosive conditions, place additional Zerust diffusers near the metal surfaces that need protection.



# Zerust Vapor Capsule Diffusers

Zerust Vapor Capsule diffusers are easy-to-use capsules that contain Zerust corrosion inhibiting technology. Vapor Capsules emit powerful corrosion inhibiting molecules that settle on metal surfaces and protect them from corrosion. All are safe for electronics, odorless, non-toxic, residue-free, and are designed to work in restricted spaces.

Use Vapor Capsules to provide multimetal corrosion protection in almost any enclosure or as a supplement to other Zerust packaging products for added protection. Use Vapor Capsules to protect electrical components in enclosures, since they do not interfere with the electrical conductivity or resistance of the contact surfaces.



## Coverage Specifications - Multimetal Protection

Product Name and Part Number	NSN National Stock Number	Volume of Protection	Radius of Protection	Duration of Protection	Adhesive Backing
VC1-1 (S) 375-M-00006	6850-01-426-3539	4 ft <sup>3</sup> (0.1 m <sup>3</sup> )	1 ft (0.3 m)	1 year	Yes
VC1-1 375-M-00001	6850-01-338-1393 Prior: 4440-01-481-3150*	4 ft <sup>3</sup> (0.1 m <sup>3</sup> )	1 ft (0.3 m)	1 year	Yes
VC2-1 375-M-00002	6850-01-475-9949 Prior: 6850-01-345-7431* Prior: 4440-01-475-9949*	35 ft <sup>3</sup> (1 m <sup>3</sup> )	2 ft (0.6 m)	1 year	Yes
VC2-2 375-M-00003	6850-01-133-0373	35 ft <sup>3</sup> (1 m <sup>3</sup> )	2 ft (0.6 m)	2 years	Yes
VC6-1 375-M-00004	6850-01-590-1676	900 ft <sup>3</sup> (25 m <sup>3</sup> )	6 ft (2 m)	1 year	No
VC6-2 375-M-00005	6850-01-348-1090 Prior: 6850-01-348-1390*	900 ft <sup>3</sup> (25 m <sup>3</sup> )	6 ft (2 m)	2 years	No

\* Obsolete NSN

### Military Users

For additional information on CID A-A-59441, NSN and proven military applications, visit [www.zerust.com/military](http://www.zerust.com/military) or email [military@zerust.com](mailto:military@zerust.com).

Our diffuser products are proudly made in the USA.



MADE IN USA



Products with or without adhesive may need to be secured with a cable tie. Particularly when vibration, cold or surface contaminants may cause the adhesive to be ineffective over time.

# Zerust ActivPak™ Packets

Zerust ActivPak packets are the newest addition to the Zerust VCI Diffuser family. They protect against flash corrosion in extremely corrosive environments. They are uniquely formulated to work in minutes to reduce corrosion incidences—even on contaminated parts and in acid-gas environments. The additional active inhibitors in the packets move faster and further than the Vapor Capsule inhibitor technology. ActivPak inhibitors have an odor that is completely safe and dissipates after the outerbag is first opened.



ActivPaks protect ferrous metals and are compatible with aluminum and aluminum alloys. It is recommended to perform test applications on copper, brass and bronze alloys before use.

## Coverage Specifications - Ferrous Protection

Product Name and Part Number	Volume of Protection	Duration of Protection	Adhesive Backing
ActivPak 35	35 ft <sup>3</sup> (1 m <sup>3</sup> )	2 years	No



ActivPak protecting a part in shipment.

# Zerust Tube Strip

Zerust Tube Strip is a flexible quarter-inch plastic tubing that is ready-to-use. Installation is easy. Simply insert the Tube Strip inside a ferrous metal tube or pipe, and cap the ends. It emits VCI vapor that saturates the air, protecting all interior surfaces from corrosion. The product can be cut to any length to meet specific corrosion protection needs, such as for protecting gun or rifle barrels.



Tube Strip being inserted into a barrel.

## Coverage Specifications - Ferrous Metal Protection

Product Name and Part Number	NSN National Stock Number	Diameter of Pipe	Volume of Protection	Duration of Protection	Product Specs
Tube Strip 475-F-00001	6850-01-590-1673	Up to 2 in (5 cm)	0.3 ft <sup>3</sup> per ft (0.008 m <sup>3</sup> per m)	2 years	.25" diameter, 1000' length, 12 lb. roll

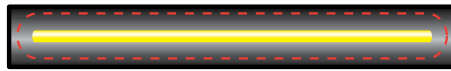


Illustration of a Tube Strip protecting a narrow pipe.

# Zerust Pipe Strip



Zerust Pipe Strip is designed to protect the interior surfaces of larger ferrous and non-ferrous pipes up to two feet in diameter. Pipe Strip can be used during shipment, storage, or work-in-progress and protects for up to two years. The product consists of Vapor Capsules assembled on a 40 foot plastic strip. This unique strip is easy to insert and remove. Pipe Strip can be cut to any length needed. To use, place the strip inside the pipe along its length and cap the ends. Protected pipes are ready to use. Simply uncap the pipe and pull the strip out.

## Coverage Specifications - Multimetal Protection

Product Name and Part Number	Diameter of Pipe	Length of Strip	Volume of Protection	Duration of Protection	Product Specs
PS2-10 525-M-00001	Up to 12 in (30 cm)	40 ft (12 m)	0.3 ft <sup>3</sup> per ft (0.3 m <sup>3</sup> per m)	2 years	10 Capsules on 4 ft centers
PS2-16 525-M-00002	Up to 24 in (60 cm)	40 ft (12 m)	13 ft <sup>3</sup> per ft (1 m <sup>3</sup> per m)	2 years	16 Capsules on 2.5 ft centers

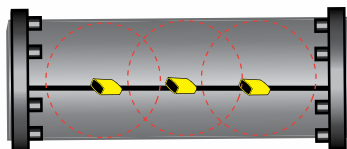


Illustration of a Pipe Strip protecting a large pipe.

# Zerust Plastabs®

Zerust Plastabs are thin, light, and rigid polyethylene squares. Their small shape makes Plastabs perfect for protecting critical surfaces within narrow or hard-to-reach areas in enclosures. Some Plastabs include peel-adhesive backing and can be affixed to most surfaces, or Plastabs can simply be dispersed throughout packages of metal parts.



Use Plastabs as a supplement to other Zerust packaging products, or use them alone for protection in tightly restricted spaces. They are ideal for protecting electrical components in small sections of enclosed cabinets or control boxes.

## Coverage Specifications - Multimetal Protection

Product Name and Part Number	NSN National Stock Number	Volume of Protection	Radius of Protection	Duration of Protection	Adhesive Backing	Qty Per Pack
.5 x .5 inch 425-M-00003	-	0.1 ft <sup>3</sup> (.003 m <sup>3</sup> )	0.3 ft (.09 m)	2 years	No	1000
.75 x .75 inch 425-M-00002	-	0.2 ft <sup>3</sup> (.006 m <sup>3</sup> )	0.4 ft (.1 m)	2 years	No	1000
.75 x .75 inch 425-M-00004	-	0.2 ft <sup>3</sup> (.006 m <sup>3</sup> )	0.4 ft (.1 m)	2 years	Yes	1000
1 x 1 inch 425-M-00001	6850-01-362-9256	0.4 ft <sup>3</sup> (.01 m <sup>3</sup> )	0.5 ft (0.15 m)	2 years	No	1000
1 x 3 inch 425-M-00005	-	1 ft <sup>3</sup> (.03 m <sup>3</sup> )	0.6 ft (0.2 m)	2 years	No	10
1 x 3 inch 425-M-00006	6850-01-590-1667	1 ft <sup>3</sup> (.03 m <sup>3</sup> )	0.6 ft (0.2 m)	2 years	No	1000



1" x 3" Plastab in an electronic's enclosure

Note: 1 x 3 inch Plastabs have printing. See photo on right.
