

# VCI/VpCI<sup>®</sup> Vapor Detection Test Kit<sup>™</sup>, Patent Pending



Test Kit Contents



Test Start: with VpCI Emitter

After 10 Minutes

**Figure. 1**

## **Significance:**

VCI/VpCIs are compounds which protect against corrosion through the vapor-phase. These active compounds are soluble in water which allows them to be absorbed from the surrounding atmosphere onto the test strip. This VCI/VpCI Vapor Detection Test Kit is specifically developed for detecting the presence of vapor-phase corrosion inhibitors (VCI/VpCI) emitted from various corrosion inhibiting products: paper, foam, powders, oil- and water- based rust preventative, water-treatment products, etc..

The kit contains enough strips and solution for 50 testings. The shelf life of the solution is 2 years.

Please note: This kit is not appropriate for testing VCI/VpCI films because of significant pre-conditioning time requirement.

## **Materials:**

- One Liter jar with lid
- VCI/VpCI Test Strips
- VCI/VpCI Test Solution
- Test specimen
- Scotch tape

## **Procedure:**

Place test specimen in jar: for paper, line jar with product; for powders and liquids, place 1 g into a weigh dish and place dish in bottom of jar; for foam or emitters, place product in bottom of jar (Figure 1). Dip VCI/VpCI Test Strip into the VCI/VpCI Test Solution, leaving about 1 cm of the strip dry. Using Scotch tape, attach the top of the strip to the inside of the jar lid. Immediately screw the lid on tight and leave test setup sit until color change from blue to pink is observed. To accelerate test, setup may be placed in a 40°C oven. Approximate time frames for test completion under room temperature are listed in Table 1.

This test is also adapted to field applications to detect the presence of VCI/VpCI.

**Table 1.** Approximate test times for completion at room temperature, in minutes

Material	VpCI-Emitter	VpCI-EcoDevice	VpCI-337	VpCI-Powder, VpCI-609	Oil-based, VpCI-326	VpCI-Water Treatment Products	VpCI-Paper
Time to initial color change	2	1	<10 sec.	2.5	<10 sec.	1	60
Time to complete change	9	5.5	1.5	11	0.5	14	180

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**KEEP OUT OF REACH OF CHILDREN**  
**KEEP CONTAINER TIGHTLY CLOSED**  
**NOT FOR INTERNAL CONSUMPTION**  
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