4119 White Bear Parkway, St. Paul, MN 55110 USA
Phone: (651) 429-1100, Fax: (651) 429-1122
Toll Free: (800) 4-CORTEC, E-mail: info@cortecvci.com
cortecvci.com • corteclaboratories.com

LABORATORY ACCREDITATION BUREAU
ACCREDITED ISO/IEC 17025
Certificate # L2267 Testing

Evaluation of Saw Blades with BioCorr

To: Jessica Carpenter

For: Pasan Wanigarathne
MK Morse
1101 11th St. S.E.
Canton, OH 44707

From: Cortec Corporation Laboratories
4119 White Bear Parkway
St. Paul, MN 55110

cc: Boris Miksic
Cliff Cracauer
Andrew Wroblewski

Project #: 14-147-1125

Results reported by: Brian Benduha
Lab Technician

Approved by: Eric Uutala
Technical Service Manager

Margarita Kharshan
Vice President of R&D

Date: October 2, 2014

Background: Customer sent in pre-packaged saw blades for humidity testing. The blades are just regular spring steel, and there are no tips mounted on them. All blades were washed using a soap solution with Texolite in it. After being washed, the saw blades were then packaged according to the following:

Samples Received:
1. Ryconox RP applied to the blade, then sealed (with tape) in regular poly film
2. Saw blade sealed in VpCI-126 ziplock bag
3. Blade sealed in VpCI-126 ziplock bag with one square inch of foam
4. BioCorr applied to the blade, then sealed in VpCI-126 ziplock bag.
5. BioCorr applied, then sealed in 126 bag with one square inch of foam

Method: ASTM D-1735 Water Fog (100F, >95% relative humidity)

Procedure: The following procedure was used:

1. All blades were packed by MK Morse prior to shipping. Blades were also deliberately handled by production employees, to evaluate the potential effect of fingerprints on the metal surface.
2. Pre-packaged parts were put into the humidity chamber and inspected for corrosion on a daily basis.
3. Record the number of hours until the appearance of corrosion.
4. After 720 hours, the test was ended. The blades were taken out of the chamber, dried, and then photographed.
5. The blades were then re-packed in 126 film and shipped back to the customer.

Results: The following results were found:

Sample #	Description of sample	Time to Corrosion Set 2
1	Ryconox RP applied to the blade, then sealed (with tape) in regular polyethylene film	70 hours
2	Saw blade sealed in VpCI-126 ziplock bag	70 hours
3	Saw blade sealed in VpCI-126 bag with one square inch of foam	160 hours
4	BioCorr applied to the blade, then sealed in VpCI-126 ziplock bag	Did not fail
5	BioCorr applied, then sealed in 126 bag with one square inch of foam	720 hours

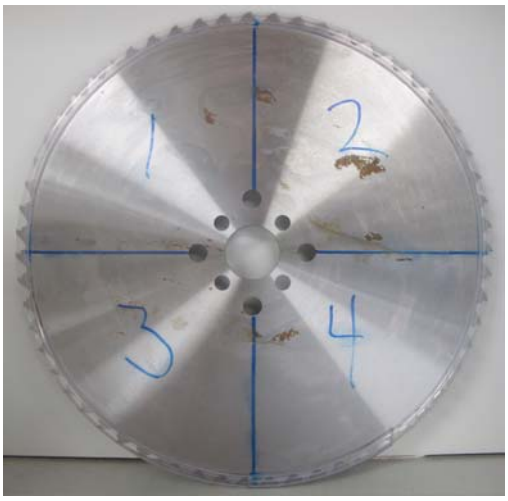
Interpretations:

1. The saw blades coated with BioCorr provided the best overall corrosion protection.
2. Fingerprint corrosion was easily seen on the first 3 blades, but not the two blades that were treated with BioCorr. Despite this result, it is our recommendation that blades be handled with clean gloves prior to packing in VpCI-126 Blue Film.

Photos:

Humidity Testing

After 720 hours



1

2

3

4

5