**EcoSonic® ESD Paper** powered by Nano-VpCI®

**Static Dissipative Corrosion Inhibiting Paper**

---

**PRODUCT DESCRIPTION**

Cortec® EcoSonic® ESD Paper combines corrosion inhibiting and static-dissipative properties to provide a complete packaging paper for your valuable items. This product eliminates static electricity buildup through the use of an environmentally friendly coating made from soybean oil that is coated onto the surface of the paper. EcoSonic® ESD Paper performs better on the static half life test (a test with an environment consisting of little or no humidity) than papers with conventional anti-stat coatings consisting of Alkyl Ammonium Chlorides, typical ethoxylated amines, typical imidazolines, phosphated esters, and nonionic based antistat coatings. The antistat protection from EcoSonic® ESD Paper is also thermally stable in excess of 392°F (200°C), pH stable between 2 and 11 at temperatures in excess of 100°F (38°C) for several days. In addition, EcoSonic® ESD Paper will provide contact, vapor, and barrier phase corrosion inhibition for ferrous and nonferrous metals. Simply wrap your sensitive electronic metal items in EcoSonic® ESD Paper, and rest assured, that your valuable items will be protected from static electricity buildup and corrosion. EcoSonic® ESD Paper paper is fully recyclable/repulpable, biodegradable, non-toxic, and does not contain any nitrites, phosphates, silicates, or other hazardous compounds.

Made from the highest quality neutral natural kraft paper, without the use of chlorine or other bleaching. This eliminates package contamination found with other competing corrosion inhibiting papers. EcoSonic® ESD Paper is easy to use. There are no chemical concentrations to calculate, no chemical tanks or application systems to maintain. Just wrap your products in the paper, and fold the edges together. Use adhesive tape as needed to hold paper folds in place. Parts protected by EcoSonic® ESD Paper can be painted, welded, and soldered. EcoSonic® ESD Paper does not influence physical properties of even the most sensitive electrical components, including conductivity and resistance.

**FEATURES**

- One product for all ferrous and non-ferrous metals
- Conforms to Performance Specifications MIL-PRF-3420G (vapor inhibiting ability) and MIL-PRF-81705D (Static Decay rate and Surface Resistivity)
- Combines corrosion inhibition, protection from electrostatic discharge and packaging into one step
- Temperature and pH independent antistat properties
- Non-toxic. Contains no nitrites, phosphates, silicates, chromates, or other heavy metals.
- Fully recyclable, repulpable.
- Effective against aggressive environments including humidity, SO₂, H₂S and galvanic corrosion from dissimilar metals.

**TYPICAL APPLICATION**

EcoSonic® ESD Paper can be used to protect any material capable of being damaged by electrostatic discharge, such as printed circuit boards, integrated circuits, PCB components, telecommunications equipment, electrical panels, electrical enclosures, batteries, and numerous other materials involving electrical with multimetals.

**METALS PROTECTED**

- Carbon Steel
- Stainless Steel
- Galvanized Steel
- Cast Iron
- Aluminum Alloys
- Copper
- Brass (≤30% Zn)
- Solder
PERFORMANCE

ESD Properties conforms to MIL PRF-81705 D
- Surface Resistivity (ASTM B 257). Between 1 x 10^5 and 10^12 Ω/sq.
- Static Decay Rate (Method 3046, Federal Std. 101C). Less than 2 seconds

Corrosion Inhibiting Properties conform to:
- MIL-PRF-3420G (vapor inhibiting ability)

METHODS OF APPLICATION

Products should be packaged immediately after cleaning, being completely dried of residual water. Keep EcoSonic® ESD Paper as close to the surface of the item to be protected as practical, leaving no barrier between the paper and the metal surface to be protected.

Use approximately 1 square foot (0.09 m²) of VpCI® paper for every 3 square feet (0.28 m²) of surface to be protected, and 1 square foot (0.09 m²) of VpCI® paper for every 0.5 cubic foot (0.01 m³) of void space. For long-term storage of up to ten years, enclose the wrapped product in an airtight package.

STANDARD CONSTRUCTION

Neutral natural kraft paper, coated with VpCI® and static dissipative material. The paper contains printed logo on reverse side to the coating.

TYPICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>TAPPI Method</th>
<th>Unit</th>
<th>EcoSonic® ESD Paper</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basis Weight, lbs</td>
<td>T-410</td>
<td>Lbs/30000 ft²</td>
<td>35±2 (57±3)</td>
</tr>
<tr>
<td>Caliper (thickness)</td>
<td>T-411</td>
<td>Mils (µm)</td>
<td>3.5 (93)</td>
</tr>
<tr>
<td>Tear-MD</td>
<td>T-411</td>
<td>gms</td>
<td>32</td>
</tr>
<tr>
<td>Tear-CD</td>
<td>T-411</td>
<td>gms</td>
<td>45</td>
</tr>
<tr>
<td>Smoothness</td>
<td>T-538</td>
<td>sheffield</td>
<td>200</td>
</tr>
<tr>
<td>Smoothness VpCI® side</td>
<td>T-538</td>
<td>sheffield</td>
<td>250</td>
</tr>
</tbody>
</table>

CD- Cross Direction
MD- Machine Direction

STANDARD TEST METHODS

- TAPPI T-410 Basis Weight
- TAPPI T-411 Caliper Thickness, Tear Strength
- TAPPI T-494 Dry Tensile/TEA
- TAPPI T-404 Stretch
- TAPPI T-530 Ink Float
- TAPPI T-538 Smooth
- TAPPI T-541 Internal Bond
- TAPPI T-476 Abrasion
- NACE TM0208-2008 Vapor Inhibiting Ability
- NACE RP0487-2000 Selection of Rust Preventives
- MIL-PRF-3420H VCI Treated Wrapping Materials, Opaque
- MIL-PRF-81705 D ESD Properties

PACKAGING AND STORAGE

Custom sizes and constructions available upon request.

LIMITED WARRANTY

All statements, technical information and recommendations contained herein are based on tests Cortec® Corporation believes to be reliable, but the accuracy or completeness thereof is not guaranteed.

Cortec® Corporation warrants Cortec® products will be free from defects when shipped to customer. Cortec® Corporation's obligation under this warranty shall be limited to replacement of product that proves to be defective. To obtain replacement product under this warranty, the customer must notify Cortec® Corporation of the claimed defect within six months after shipment of product to customer. All freight charges for replacement products shall be paid by customer.

Cortec® Corporation shall have no liability for any injury, loss or damage arising out of the use of or the inability to use the products.

BEFORE USING, USER SHALL DETERMINE THE SUITABILITY OF THE PRODUCT FOR ITS INTENDED USE, AND USER ASSUMES ALL RISK AND LIABILITY WHATSOEVER IN CONNECTION THEREWITH. No representation or recommendation not contained herein shall have any force or effect unless in a written document signed by an officer of Cortec® Corporation.

THE FOREGOING WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES, EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY IMPLIED WARRANTY OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE. IN NO CASE SHALL CORTEC® CORPORATION BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES.

Distributed by:

Cortec® Corporation
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
http://www.cortecvci.com

Printed on recycled paper 100% post consumer

Revised: 12/19/2016. ©Cortec Corporation 2002-2016 of Cortec Corporation. All Rights Reserved. Copying of these materials in any form without the written authorization of Cortec Corporation is strictly prohibited. 2016, ©Cortec Corp. ISO accreditation applies to Cortec’s processes only.