

ICT®510-CLHD VCI Film
Technical Data Sheet

ZERUST®/EXCOR® ICT®510-CLHD VCI Film is a high-density, lightweight yet strong packaging solution specifically designed for interleaving, laminating, and serving as a superior alternative to VCI kraft paper due to its increased durability and exceptional resistance to moisture, offering enhanced protection against corrosion compared to traditional VCI kraft paper. ICT®510-CLHD VCI Film diffuses invisible, odorless, and non-toxic ZERUST® Vapor Corrosion Inhibitors (VCI) that settle onto exposed metal surfaces inside the packaging or enclosure. Upon removal from the packaging, the VCI will dissipate from the metal surface, allowing immediate painting, welding, or further processing.

Use ZERUST® VCI Film to protect metal components, machined and cast parts, engines, molds, and more from rust and corrosion for years†. For additional protection in challenging environments, ZERUST® VCI Film may be used with ZERUST® rust inhibitors, preventatives, coatings, or VCI diffuser products. Engineered for a broad range of applications, ICT®510-CLHD is available in ferrous, multimetal, non-ferrous, and anti-tarnish protection formulations and packaging types, including rolls, sheets, tubing, and bags, ensuring an ideal packaging solution. Custom options such as UV stabilizers, acid-gas blockers, anti-block, slip, and anti-static additives are available to meet specific protection requirements. Whether in storage or transit, ZERUST® ICT®510-CLHD VCI Film delivers unparalleled performance.

ZERUST® is the inventor of poly VCI technology, and ZERUST® VCI film has proven its performance and safety with thousands of customers worldwide for over 50 years. It is used to protect valuable metal items for manufacturers in industries such as automotive, agricultural, aerospace, and mining. ZERUST®/EXCOR® offers on-site support and service in more than 70 countries via a network of 21 joint venture partnerships. Check with your ZERUST®/EXCOR® representative for a comprehensive corrosion management solution that is most effective for your metal assets.

Typical Properties

Appearance Typical colors are yellow, green, or clear. Additional colors are available upon request. Subject to order minimums.
 Substrates Available in ferrous, multimetal, non-ferrous, and anti-tarnish protection formulations.

Property	Direction (Machine or Transverse)	ICT®510-CLHD VCI Film*		ASTM Test Method
Thickness	-	1 mil (25 µm)	1.5 mil (38 µm)	D-6988
Dart Impact Resistance	-	65 g	146 g	D-1709
Elmendorf Tear Strength	MD	95 gf	100 gf	D-1922
	TD	480 gf	700 gf	
Tensile Strength at Break	MD	26.7 MPa (3872 psi)	26.5 MPa (3843 psi)	D-882
	TD	19.1 MPa (2770 psi)	33.4 MPa (4844 psi)	
Elongation at Break	MD	570 %	570 %	D-882
	TD	660 %	660 %	
Water Vapor Transmission Rate	-	0.22 (g/100 in ² day) @73°F (23°C), 90% RH	0.15 (g/100 in ² day) @73°F (23°C), 90% RH	F-1249
Vapor Inhibiting Ability (VIA)	-	Pass	Pass	NACE TM0208

* Typical values, not meant to be a specification.

This data sheet provides general guidelines for operation, application, and removal. Please contact your ZERUST®/EXCOR® account representative for more specific recommendations on your particular operation and conditions.

Operating Summary

- Pack only clean and dry parts.
- Always wear clean and dry gloves when handling the metal parts to protect them from corrosion-causing fingerprints.
- When packing, the temperature of the metal parts should be about the same as the room temperature to avoid condensed moisture. (See reverse side for further Operating Summary details).

Scan QR for more



**product information
and photos**

- Tightly close packages with tape, heat seal, zip ties, or fold over.
- Insert additional ZERUST® materials (such as ICT®420-35 VCI Kraft Paper) as interleave for added protection in larger and tightly packed or layered packages.
- Avoid placing metal surfaces in direct contact with wood or cardboard (sources of moisture and acid).

Availability

ZERUST®/EXCOR® ICT®510-CLHD Film is available in stock and has non-stock options and additives, such as UV stabilizers, acid-gas blockers, anti-block, slip, and anti-static, subject to minimum order quantities. Contact your ZERUST®/EXCOR® representative for ordering information.

Part Number	Metal Type	Quantity
150-F-00175	Ferrous	13" x 12" x 1 mil Sheets (2 Rolls/4,000 Sheets/Roll)
150-F-00166	Ferrous	48" x 56" x 1.25 mil Sheets (500 Sheets/Roll)
100-F-00009	Ferrous	48" x 2,000' x 1.5 mil Roll
150-F-00005	Ferrous	36" x 36" x 1.5 mil Sheets (750 Sheets/Roll)
150-F-00163	Ferrous	42" x 42" x 1.5 mil Sheets (500 Sheets/Roll)
150-M-00001	Multimetal	36" x 36" x 1.5 mil Sheets (750 Sheets/Roll)

Size ranges (width):

Bags & Tubing:

2" - 125" (flat)

2" - 150" (gusset)

Sheeting:

2" - 26'

Protection Info[‡]

Indoor[‡] Protects clean metals for years[‡] when used correctly.

Outdoor[‡] Not recommended

Storage

- Store in a cool, dry place and away from sunlight in the original packaging for up to 3 years from the date of shipment.

Disposal

- Check on options for recycling and incineration.
- Dispose of in accordance with local, national, and international regulations.

Precautions

- Do not use for outdoor protection.
- Safe for people. This product does not pose a health hazard to users due to its classification as an article according to EU REACH, UN GHS, US OSHA HazCom, CLP, and CA WHMIS regulations.
- Refer to the Safety Data Sheet (SDS) for safety information.

‡ DECLARATION

Corrosion protection claims are based on Northern Technologies International Corporation (NTIC) internal laboratory testing performed under controlled parameters on contaminate-free substrates. Real-world application corrosion protection duration on different substrates will vary and depends on factors such as, but not limited to, the application or use, environmental / storage conditions, surface cleanliness, type of substrates, and coating thickness (where applicable). The use of the term "Up to" in reference to time is defined as any time duration from zero up to a specified time frame, but in no event beyond the specified time frame. The use of the term "for years" is based on NTIC's experience with its products but is in no way guaranteed. The use of the term "Up to" in reference to volume is defined as any volume from zero up to a specified volume but in no event beyond the specified volume of protection. It is the customer's / user's obligation to evaluate product performance, corrosion protection duration, safety, and suitability for intended use within the scope advised in the data sheet and to comply with all applicable laws and regulations. **LIMITED WARRANTY/DISCLAIMER** Warranty is limited to the replacement of a product that fails to meet specifications. For full warranty and disclaimer information, visit www.zerust.com/warranty.

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