

INTERCEPT STRETCHWRAP

PROTECT YOUR INVESTMENT IN MACHINED PARTS FOR PENNIES PER DAY!



Corrosion Intercept® stretch film protects ferrous and non-ferrous metal parts from atmospheric corrosion for years.

Corrosion Intercept® film prevents attack from atmospheric gases.

Lucent Technologies with Bell Laboratories developed the Corrosion Intercept technology. Tests have been ongoing for more than 10 years.

No hazardous chemicals are released by this product

Glass, plastics, rubber, metals and other parts of assemblies are not affected.

FREQUENTLY ASKED QUESTIONS ABOUT CORROSION

- 1. What is corrosion?**
Corrosion is an electrochemical reaction between metals and their environment to form metal oxides or salts.
- 2. What causes corrosion?**
The presence of corrosive chemicals or gases such as chlorine, sulfur, oxygen, nitrous groups and their compounds. These chemicals cause an electrochemical reaction on the surface that results in corrosion.
- 3. What is atmospheric corrosion?**
Corrosive gases in the atmosphere caused by the burning of fossil fuels, from saltwater evaporation, electrical discharges such as lightning, industrial processes, wood and corrugate offgassing, and engine exhaust release chemicals that contact metal surfaces and react to form corrosion.
- 4. What is Corrosion Intercept?**
Corrosion Intercept is a reactive polymer developed by Bell Laboratories to prevent corrosion. Corrosion Intercept acts as a barrier to corrosive gases by neutralizing them as they penetrate the polymer compound. Corrosion Intercept acts as a scavenger of any latent corrosive gases present and neutralizes them as well. No chemicals or deposits are left on the protected metals.
- 5. What is Corrosion Intercept Stretch Film?**
Corrosion Intercept stretch film is a film that contains a discrete layer of the Corrosion Intercept polymer. The layer is 100% Corrosion Intercept. The film also has the properties of a stretch wrap film with high elongation and a layer of high

tack, which binds the package together. These properties make it suitable as a corrosion resistant packaging film. By using a thin film and wrapping an item a number of times the stretch wrap acts as a water vapor barrier, a strong container, and in this case a barrier to atmospheric corrosion. Corrosion Intercept Stretch Film contains no migrating plasticizers or chemicals that might discolor metals or affect electronic components.

6. **What is VCI?**

VCI is an abbreviation for Volatile Corrosion Inhibitor. VCI products may contain any of a variety of often emitting chemicals, often including a family of amine products, which when combined with aliphatic hydrocarbons or nitrates migrate from the packaging and deposit themselves on the surfaces to be protected. The temperature and the vapor pressure of the particular VCI being used control the rate of deposition. If the temperatures are high the VCI is used up too quickly, if the temperature is too low the VCI chemical may not be sufficient. Published MSDS sheets may, or may not, indicate potential health and safety implications from the vapors emitted by these products.

7. **How long will the product be protected?**

Corrosion Intercept will last for years depending upon the concentration of corrosive chemicals in the atmosphere. Properly stored film has a nearly indefinite shelf life (measured in decades).

8. **Will the Corrosion Intercept work if there are oily deposits on the surfaces of the metals?**

Corrosion Intercept may be used in conjunction with light machine oils or non-VCI containing oils. Fingerprints need to be removed and the metal to be protected needs to be dry.

9. **How do you know if the product needs to be repackaged?**

Corrosion Intercept will change color as it is used up. If the Corrosion Intercept product turns from copper to charcoal gray or yellow it is time to rewrap the product.

10. **Can Corrosion Intercept be recycled?**

There are no hazardous chemicals in Corrosion Intercept. It may be recycled as colored polyethylene.

11. **Will Corrosion Intercept protect a product inside corrugated packaging?**

CI Stretchwrap wrapped around the outside of a corrugated carton cannot protect the metal inside the carton. Corrosion Intercept will help ensure that no additional external pollutants enter the system and no reactive gases will be able to penetrate the packaging. Under normal conditions the major source of corrosive gases will come from the corrugate itself (which like wood releases acetic and formic acids), from the item being wrapped (for example, vulcanized rubber emits sulfur, and PVC chlorides), or from external sources. It is always best to have the item wrapped first with Intercept then put in a stiff container if physical protection is needed.

12. **Do varying temperatures affect the performance of Corrosion Intercept?**

No. But corrosive gases are more reactive with higher temperatures, which results in the gases more quickly bonding to the Corrosion Intercept. Also understand that condensation trapped during packaging, resulting from the temperature reaching dew point, on the metal may result in corrosion that cannot be prevented. In these situations a non-metallic desiccant is recommended. In addition to being clean and dry, the items to be packaged should be near or at ambient temperatures to minimize condensation.

13. **How long will Corrosion Intercept protect metal products stored outdoors?**

Protection is dependent upon the external storage conditions. Wide changes in day and night time temperatures, proximity to heavy industrial sites, waste sites, or ocean locations. Long term exposure to sunlight and how well the product is wrapped are other variables that need to be considered. Please contact us for specific information regarding packaging and storage recommendations.

14. **How many Corrosion Intercept products are there? Do I need a different one for each metal to be protected?**

The reactive polymer protects both ferrous and non-ferrous metals. Unlike VCIs the

Corrosion Intercept product is not dependent on vapor pressure, temperature, or type of cyclic amine used. You don't have to stock different formulas for each metal or temperature condition.

15. Do residual chemicals on the metal interfere with the Corrosion Intercept's effectiveness?

Corrosion Intercept acts as a barrier to atmospheric corrosion and acts as a preferential corrosion site for corrosive gases inside the wrapped product container. Corrosion Intercept only reacts with corrosive gases that may be released from the residual chemicals. Intercept cannot reverse any corrosion that has already occurred or stop corrosion if the corrosive element is in intimate contact with the surface to be protected. All surfaces should be clean and dry prior to packaging.

16. Will Corrosion Intercept affect plastics or cause discoloration of metals?

Corrosion Intercept has a neutral pH and will not affect optical plastics or glass. Corrosion Intercept contains no volatile compounds that could discolor metals. Intercept doesn't release any chemicals into the packaging and thus can't contaminate plastic or optical surfaces.

17. How does Corrosion Intercept compare to corrosion inhibitor papers?

Corrosion Intercept is a polyethylene film with excellent moisture vapor barrier properties. Papers, on the other hand, are more absorbent and more porous than plastic films. Intercept has been shown more effective in preventing corrosion than several VCIs. But a laboratory or field test would be necessary to compare Intercept with a specific VCI product. Please ask us for assistance.

18. Are gloves required to handle metal surfaces?

Yes. The oils present on the hands will initiate corrosion of the metal. All surfaces of the metal parts should be clean and dry and this is true no matter what product you choose to use to prevent corrosion.

19. How does Corrosion Intercept compare to the cost of using Cosmoline or oils for the protection of metals?

Many oils and coatings contain hazardous substances and require protective clothing during application and removal. In addition the labor cost involved in application and removal is significant compared to the one time wrapping of the product. The time from receipt to immediate use of a product wrapped with Corrosion Intercept is minutes compared to hours for coating removal. Solvents used for cleaning metal surfaces may be hazardous and require costly disposal and additional record keeping. Some jurisdictions have restrictions or bans on certain chemical preservatives and the solvents necessary to remove them.

20. Does protective clothing need to be worn to handle Corrosion Intercept?

No, during normal use, Corrosion Intercept does not release any chemicals and is non-allergenic.

21. Does Corrosion Intercept attract dust?

Because Corrosion Intercept does not leave any residue or coat the product to be protected there is nothing to attract dust to the surface of the metal. This is important because, as exemplified in a recent Boeing Corporation paper, dust could cause intermittent electrical failures in electronics. A similar study conducted by Lucent Technologies shows the effects of dust, attracted to VCI coated surface, on shorting out electrical power supplies. Dust may be attracted to surfaces with oil deposits or other organic coatings.

PREPARATION OF MATERIALS FOR RUST-PREVENTIVE PACKAGING

1. Make sure that the material is dry. Additionally, no fingerprints, oils, acids, or alkali products should be present.
2. Ensure that the product is cleaned with non-chlorinated solvent.
3. After cleaning the product, package it as soon as possible.
4. Do not place any other materials between the Corrosion Intercept® film and the product to be protected.
5. Seal the package by placing a minimum of 6 wraps. Then, twist and reverse wrap the film around the product one time.
6. Top and bottom sheets can be made from Intercept Shrinkfilm where necessary to insure that the product or equipment

is totally sealed.

Case Study:

<http://www.interceptshrinkfilm.com/docs2/foundry.pdf>

[Crosby Foundry project description](#)

Case Study on Intercept Stretchwrap protecting foundry dies



The roller photo is the test organized by ICC with Sandvik. It involved 2 months of outdoor exposure in rainy Western Australia.

NOTE: Intercept Stretchwrap is made from the copper colored Corrosion Intercept resin, not the more ESD protective effective, nearly black, Static Intercept resin. PolyAmerica no longer distributes Intercept Stretchwrap but does make it for EMI on a contract basis.

Corrosion Intercept Stretch Wrap	Mil	(Inches) Width	(feet) Length	Price Roll	Rolls per Case	
12" X 1000'	1.5	12	1000	call	4	
18" X 1000'	1.5	18	1000	call	4	
20" X 2000'	1.5	20	2000	call		based upon 1500 pound quantity

FOB Detroit or Texas

Machine rolls have no core extensions

36 rolls equals full pallet quantity for 12" or 18"

Film thickness is comprised of 3 layers, one is 0.5 mil Corrosion Intercept, two are

Discounts: 9% discount for 18-35 cases; 14% for 36+ cases

Minimum case lot orders please