# **Product Data**



### Description



Clear Pak BIO is a proprietary corrosion inhibitor (VCI) film that combines the superior rust protection you expect from Daubert Cromwell with the highest level of care for the environment and worker safety.

The corrosion inhibitors in Clear Pak BIO film are all natural, derived from plants, completely nitrite-free and amine-free. Clear Pak BIO complies with the strictest occupational health, safety and environmental regulations while protecting your metal parts from corrosive elements during storage and export shipment.

### **Features**



#### Proven Daubert Cromwell corrosion inhibitor chemistry: Bio-based, nitrite-dree, amine-free

- Metals protected: Ferrous metals. Compatible with wide range of metals and alloys in multi-metal applications
- Excellent barrier against oil, water and moisture
- · Odorless, non-toxic, fully recyclable
- Purple tinted film is heat-sealable, flexible, strong and tear-resistant
- Safe and easy to use; no special handling required
- Parts remain clean, dry and ready to use immediately without additional cleaning or rework
- RoHS compliant; TRGS 615 and 900 compliant.
- REACH compliant
- Passes rigorous test TL 8135-0043 with highest grade possible (3).
- Compatible with Daubert Cromwell rust preventive liquids, papers, foams and emitters.

## **Typical Applications**



#### For transport, export, storage of:

- · Bags and wraps for individual part packaging
- Large size bags, pallet liners and covers for engines, steel parts and assemblies
- Sheeting for interleaving between layers of steel components
- Protecting powertrain systems, drivetrain systems, finished equipment and machines
- Large and roughly handled assemblies, frames, stampings, doors, etc.
- Export packaging



Packaging personnel should always wear gloves while handling metal parts. Parts should be clean and free of fingerprints before wrapping. Package clean products as quickly as possible. Place the part no more than 12" (30 cm) from the Clear Pak BIO film.







# **Technical Data**



BIO-Based Corrosion Inhibitor (VCI) Film
4 mil (100 μm)

## **Physical Data**

Typical Properties	Typical Values 3.86 (98)		ASTM Test No. D-6988
Thickness (Gauge), mils (μm)			
	Machine Direction	Transverse Direction	
Tear Resistance, gf (N/ply)	466 (4.57)	758 (7.41)	D-1922
Tensile Strength, lb/in (kN/m)	8.56 (1.50)	7.71 (1.35)	D-882
Elongation (%)	714	856	D-882
Protection Time			
Inside Dry Storage			24 Months
Metal	Level of Protection		
Steel, AISI 1010	Protection		
Cast Iron	Protection		
Aluminum	Test for compatibility		
Zinc or zinc galvanized	Not recommended		
Copper	Not recommended		
Brass*	Test for compatibility		
Bronze	Not recommended		
Category A**		Not recommended	

# Storage

Store in a cool, dry place, away from direct sunlight. Do not store outdoors, in high humidity, or at high temperatures.

# Shelf Life

24 months minimum from date of shipping when stored in the original shipping container used by Daubert Cromwell and not in high humidity and not at high temperatures, or stored outside. Storage outside these conditions voids this statement.

## **Approvals**

RoHS, Recyclable, TRGS 615, TL8135, Prop65, REACH





WARRANTY The data, statements and recommendations in this product specification sheet are based on testing, research and other development work, which has been carefully conducted by us, and we believe such data, statements and recommendations will serve as reliable guidelines. Physical properties shown above represent typical values and are not intended for use in writing specifications. However, this product is subject to numerous uses under varying conditions over which we have no control, and accordingly, we do NOT warrant that this product is suitable for any particular use. Users are advised to test the product in advance to make certain it is suitable for their particular production conditions and use. All products manufactured by us are warranted to be first class material and free from defects in material and

workmanship. Liability under this warranty is limited to the net purchase price of any such products proven defective or, at our option, to the repair or replacement of said products upon their return to us transportation prepaid. All claims on defective products must be made in writing within 30 days after the receipt of such products in your plant and prior to further processing or combining with other material and products. We make no warranty, express or implied, as to the suitability of any of our products for any particular use, and we shall not be subject to liability from any damages resulting from their use in operations not under our direct control. This warranty is exclusive of all other warranties, express or implied, and no representative of ours or any other person is authorized to assume for us any other liability in connection with the sale of our products.

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<sup>\*</sup> Brass alloys in the "red area containing up to 20% zinc will act like copper; brass in the "white" area containing over 20% zinc and will act like Category A metals.

<sup>\*\*</sup> Category A metals include zinc, cadmium, nickel, cadmium plated steel, and nickel plated steel. These are prone to contact corrosion sensitivity with inhibitor chemicals, but will be protected as shown in the vapor phase.