Product Data Corrosion Inhibitor VCI Paper

Description



Uniwrap 33MPI (UW33MPI) is a 35 lb/ream (57 g/m²) wax-coated kraft saturated with Daubert Cromwell's proprietary multi-metal volatile corrosion inhibitor (VCI) formulation. The wax coating is ideal for molding around hand-wrapped parts. Paper provides an excellent moisture barrier, is tear and puncture-resistant.

UW33MPI is designed for general protection of ferrous/non-ferrous metal combinations, including cadmium and zinc galvanized steel, without need for surface-applied oils or rust preventive liquids. It has corrosion inhibitors on both sides and 6-language print on one side to identify it as valuable packaging for metals.

Features



Proven Daubert Cromwell corrosion inhibitor chemistry

- Metals protected: Mild carbon steel, stainless steel cast iron, zinc and zinc galvanized, copper, cadmium, nickel-plated steel, brass and bronze.
- Safe and easy to use; no special handling required
- No heavy metals, chromates, phosphates, or secondary amines
- Replaces oil, grease, and traditional corrosion prevention methods
- Parts remain clean, dry and ready to use immediately
- RoHS 2 compliant
- Compatible with Daubert Cromwell rust preventive liquids, emitters and films.

Typical Applications



For transport, export, storage of

- Fabricated metal components and assemblies
- Individually wrapped parts.
- Bearings, gears, valves, pistons, Brake parts, automotive parts

To use, wrap or layer clean parts in UW33MPI paper. Place within 12" (200-300mm) of the metal. The corrosion inhibitors form a protective molecular layer on the surface of the metal. When the parts are unwrapped, the protective layer immediately begins to dissipate. Parts are clean, corrosion-free and ready to use. No further processing is necessary prior to use.



Uniwrap® Product Family					
Product	Basis Weight	Construction	Description	Protection	
UW30MPI	30 lb ream /49 g/m ²	Natural kraft	General protection	Multi-metal	
UW33MPI	35 lb ream/ 57 g/m²	Wax-coated kraft	Wax-coated kraft	Multi-metal	
UW35MPI	35 lb ream/57 g/m ²	Natural kraft	General protection	Multi-metal	
UW40MPI	40 lb ream/65 g/m ²	Natural kraft	General protection	Multi-metal	
UW60MPI	60 lb ream/98 g/m ²	Natural kraft	General protection	Multi-metal	
UW94MPI Woven	40 lb ream/65 g/m ²	Poly laminated to woven	Heavy duty, strong,	Multi-metal	
		fabric for strength	moisture-resistant		
PC50MPI Scrim	50 lb ream/80 g/m ²	Poly laminated to tri-	High strength, moisture	Multi-metal	
		directional scrim	resistant, durable		
40PCMPI	40 lb ream/65 g/m ²	Poly Coated Kraft	General Protection	Multi-metal	
60PCMPI	60 lb ream/98 g/m ²	Poly Coated Kraft	General Protection	Multi-metal	









Technical Data

UNIWRAP® UW33MPI

Corrosion Inhibitor VCI Paper

Physical Data

Physical Properties		Typical Values		
Property	Units	Typical Value		Test Method
Finished Basis Weight	lb/ream (g/m²)	47.5 (77)		TAPPIT410
Caliper (thickness)	mil (μm)	3.8 (97)		TAPPI T411
Mullen Burst Strength	psi (kPa)	38.2 (263)		TAPPI T403
		Machine Direction	Cross Direction	
Elmendorf Tear Strength	g/ply (N/ply)	58.3 (0.57)	72.9 (0.72)	ASTM D689
Tensile Strength	lb/in (kN/m)	25.6 (4.49)	9.9 (1.74)	ASTM D828
Elongation	%	2.1	4.7	ASTM D828

Protection Time

Inside Dry Storage 24 Months (min)

Metal	Protection	
Mild Carbon Steel and Cast Iron	Provides full protection in contact and vapor phases	
Stainless Steel	Provides full protection in contact and vapor phases	
Aluminum	Passive; Test for compatibility	
Zinc and Zinc Galvanized Steel	Provides full protection in contact and vapor phases	
Copper	Provides full protection in contact and vapor phases	
Brass ¹	Provides full protection in contact and vapor phases	
Bronze	Provides full protection in contact and vapor phases	
Silver	May protect; Test for compatibility	
Category A ²	Provides full protection in contact and vapor phases	
Category B ³	May protect; Test for compatibility	

- 1. 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.
- 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.
- 3. Category B metals include lead, antimony, babbitt alloys, solder, magnesium or magnesium alloys.

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 from date of shipping, stored in the original, shipping container used by Daubert Cromwell and not in high humidity and not at high temperatures, or stored outside.

Approvals

RoHS, OEM Approved



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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