

Cortec Corporation Competitive Analysis of Packaging Products

PAPERS

Product/Manufacturer	Project #	Nitrite-based	Multimetal Protection	Test Results
<i>VCI-144, VCI-146/Cortec</i>		<i>No</i>	<i>Yes</i>	<i>Passed F-12, Razor Blade, SO₂</i>
Grease Paper/Daubert	4228	No	No	
Daubrite 500/Daubert	5019	Yes	Copper?	
Uniwrap 200/Daubert	5019	Yes	Copper?	
Uniwrap A/Daubert	5019	Yes	Copper?	Failed F-12 (8 days)
	5024			
	00-044	Yes	No	Passed Razor Blade
Exeltor/Daubert	5019	Yes	No	Failed F-12 for copper
KR/VCI	5044	Yes	No	
Ferro Pak/Cromwell Phoenix	5228	No	No	Failed SO ₂ , Razor Blade
MPI/Chapman	5332	Not tested	No	Failed Razor Blade for copper & aluminum
Anti Rust/Chapman	5332	Not tested	Aluminum	Failed Razor Blade for copper
Anti Rust Polycoated/Chapman	5332	Not tested	Aluminum	Failed Razor Blade for copper
ProPack Reinforced / Fuchs	6112	Not tested	Contact protection to carbon steel and copper	Failed VIA
ProPack Polycoated Paper / Fuchs	6112	Not tested	Contact protection to carbon steel and copper	Failed VIA
XL-90 Rust Fighter / Not tested	6136	Not tested	No	Failed F-12, SO ₂ , VIA, Razor Blade
Inhibitor Paper / Smith & Wesson	6373	Yes	No	Failed Razor Blade (copper)
VCI Crepe Paper / Northern Inst.	7268	Yes	Not tested	Not tested
Newpack / NKVCI	7325	Yes	Yes	Not tested
Copack / NKVCI	7325	No	No	Failed German VIA, Razor Blade (copper)
Annox VCI Paper / SKS	7335(2)	Not tested	No	Failed Razor Blade for Copper and Aluminum
MDV (semi-bleached) / Kraft	8027	Yes	Copper	Not tested

Rexam Antirust/England (Mfg. for Fuchs)	8028	Not tested	No	Failed Razor Blade (Cu and Al) (Passed Razor Blade on Carbon Steel, TL-8135-002 and SO ₂)
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PAPERS (cont.)

Product/Manufacturer	Project #	Nitrite-based	Multimetal Protection	Test Results
Branorust / N.A.	8058	Yes	No	Failed Razor Blade (Copper)
Brown paper / Cromwell Phoenix	9118	Yes	Not tested	Passed Razor Blade (Carbon steel)
Tan paper / KS-VCI	9120	Yes	Not tested	Passed Razor Blade (Carbon steel)
Anox VCI / SKS	00-032	Yes	No	Passed Razor, failed VIA
Protek Wrap / Daubert	00-044	Yes		Passed Razor Blade, VIA
Vaporap / Supraba	00-044	Yes		Passed Razor Blade, VIA
Laminated paper / Daubert	00-272	Yes	Yes	Passed Razor Blade, SO ₂ , VIA

FOAMS

Product/Manufacturer	Project #	Nitrite-based	Multimetal Protection	Test Results
<i>VCI-130 Series/Cortec</i>		<i>No</i>	<i>Yes</i>	<i>Passed F-12, VIA, SO₂</i>
Foam/Anox	5100	No	No	Failed F-12, VIA, Eschke
Green strip / VAPPRO	00-022	No	Not tested	Failed German VIA
Blue strip / VAPPRO	00-022	No	Not tested	Failed German VIA

FILMS

Product/Manufacturer	Project #	Nitrite-based	Multimetal Protection	Test Results
<i>VCI-126/Cortec</i>		<i>No</i>	<i>Yes</i>	<i>Passed F-12, VIA, SO₂, Razor Blade</i>
Eastern Film / Eastern Industries	None	Yes	Yes	Failed F-12 (Carbon steel and copper)
Mid VSA Motorcycle Cover	None	No	No	Failed Razor Blade, VIA
Zerust / Northern	4226	Yes	Not tested	Not tested
	6166	Yes	No	Failed VIA, Razor Blade
Kojin Film / N.A.	5035	Yes	Not tested	F-12 (turned yellow), German VIA
NonCor / Northern	5073	Yes	No	Failed F-12, FT-IR

Zerust 12505	5091	Yes	Not tested	FT-IR
Aicello Boselon 103 Japan	5160	Yes	No	Failed F-12, VIA
Zerust ROF / Northern	5277	Yes	Yes	Failed F-12
10410-13/Colortech	5359	No	No	Failed F-12, VIA, SO ₂ , Razor Blade

FILMS (cont.)

Product/Manufacturer	Project #	Nitrite-based	Multimetal Protection	Test Results
Brangs & Heinrich Film (Blue)	5397	No	Not tested	FT-IR
	7248	No	No	Failed Razor Blade, German VIA
	8016	No	No	Failed Razor Blade, German VIA, SO ₂
	8103	No	No	Failed Razor Blade, German VIA
Northap Film / N.A.	7007	No	Not tested	Failed Razor Blade
Excor / Northern Instruments	7085	Yes	No	Failed Razor Blade, F-12, German VIA
	9027	Yes	No	Failed Razor Blade, F-12, VIA, FIAT Test
	00-077	Yes	No	Failed F-12, VIA, passed Razor and SO ₂
	00-085	Not tested	No	Failed Razor (Cu), F-12, VIA, passed Razor (carbon steel)
Rampack Polypack / Pvt. Ltd.	7178	Yes	No	Failed Razor Blade (copper)
Propack Film / Fuchs	7198	No	Passed Razor Blade on Copper	Failed SO ₂ , German VIA, Razor Blade (Carbon steel)
	7199	No		
Film / Marshal Plastics	8083	No	No	Failed Razor Blade (copper and carbon steel), German VIA
Anticorit / Fuchs	8103	No	No	Failed Razor Blade, German VIA
	00-077	Yes	No	Failed VIA, passed F-12, SO ₂ & Razor
Wepelen [®] ACF / Werra Plastic	8103	No	No	Failed Razor Blade, German VIA
Yellow film / Northern Inst.	8150	Yes	No	Failed Razor Blade, German VIA
Boselon Film	8248	Yes	No	Failed Razor Blade, German VIA, ASTM D-1748
ClearPak [®] / Daubert	8250	No	No	Failed VIA, Razor Blade, SO ₂
	00-044	No	No	Failed Razor, VIA
Green film / Polar Plastics	8255	No	No	Failed German VIA, SO ₂
	9007	Yes	No	Failed German VIA, F-12

Branofol VCI/Brangs & Heinrich	9027	N.A.	No	Failed Razor Blade, F-12, German VIA, FIAT Test
Clear film / Triumph Industries	9044	Yes	Not tested	Not tested
Dinol film	9108	No	No	Failed Razor Blade (copper), German VIA, SO ₂

FILMS (cont.)

Product/Manufacturer	Project #	Nitrite-based	Multimetal Protection	Test Results
VCI MM / Zerust	9155	No	No	Failed Razor Blade, German VIA
Film bags / Daubert	9171	No	No	Failed Razor Blade, German VIA
	00-032	No	No	Failed Razor, VIA, ASTM D-1748
	00-169	No	No	Failed Razor, German VIA
Propack 3000 / Fuchs	9198(2)	N/A	N/A	Failed FIAT Distance
	9198(5)	Yes	No	Passed FIAT Contact
Batoher	9254	No	No	Failed Razor Blade on Aluminum and Copper, and German VIA
Bright green bag/Cromwell Phoenix	00-030	Yes	Yes	Passed Razor Blade on Carbon steel, copper & aluminum, F-12, German VIA
Olive-green bag / Boselon	00-032	No	No	Failed Razor, VIA, ASTM D-1748
Light-yellow bag / Northern	00-032	No	No	Failed Razor, VIA, ASTM D-1748
Woven PE sheet/Northern inhibitors	00-096	Yes	No	Failed Razor, VIA
Silver Guard / Cromwell Phoenix	00-105	No	No	Failed Razor, VIA
Corrosion Intercept / Griffolyn	00-169	Not tested	No	Failed Razor Blade on Carbon steel & Copper, failed SO ₂
White film / Marshall Plastics	00-202	No	No	Failed Razor, SO ₂ , F-12
Clear film / Meuwissen	00-269	Not tested	No	Failed Razor Blade on Copper, CS
VCI Bag / Henkel	01-010	Yes	No	Failed Razor Blade on Copper, SO ₂
Clear Blue Film / VCI Brazil Plastic	00-203	No	No	Failed Razor, SO ₂ , VIA, F-12, FT-IR, NO ₂ /NO ₃

STRETCH FILMS

Product/Manufacturer	Project #	Nitrite-based	Multimetal Protection	Test Results
<i>Cor-Pak Stretch Film/Cortec</i>		<i>No</i>	<i>Yes</i>	<i>Passed F-12, VIA, SO₂, Razor Blade</i>
Brithene	5300	Yes	No	Failed F-12, Razor Blade, SO ₂
ITW-Signode	5316	Yes	No	Failed F-12
	00-272	Yes	No	Failed Razor, SO ₂

Cromwell Phoenix	9229	Yes	No	Failed Razor Blade, German VIA
Amcor Flexibles	9250	Yes	No	Failed Razor Blade on Carbon steel, Copper and Aluminum, F-12, SO ₂
Tomoe	9274	No	Not tested	Failed Razor Blade on Carbon steel, SO ₂

STRETCH FILMS (cont.)

Product/Manufacturer	Project #	Nitrite-based	Multimetal Protection	Test Results
Mizuguchi	9274	Yes	Not tested	Failed Razor Blade on Carbon steel, SO ₂
Aicello	9274	Yes	Not tested	Failed Razor Blade on Carbon steel, SO ₂
VCI Stretch Film / MIMA	9130	No	No	Failed Razor Blade & German VIA
	01-021	Yes	No	Failed Razor Blade (CS and Cu)
Yellow film / Trioplast	01-021	No	No	Failed Razor Blade (CS and Cu)

POUCHES

Product/Manufacturer	Project #	Nitrite-based	Multimetal Protection	Test Results
ProPack Pouch / Fuchs	6112	Not tested	Yes	Failed VIA

EMITTERS

Product/Manufacturer	Project #	Nitrite-based	Multimetal Protection	Test Results
<i>VCI-105, 110, 111/Cortec</i>		<i>No</i>	<i>Yes</i>	
Zerust VC2-1 / Northern Inst.	None	Yes	No (Aluminum)	Failed F-12, ASTM D-130
Zerust VC1-1 / Northern Inst.	None	Yes	No (Aluminum)	Failed F-12
Caprust VCI-1 / Northern Inst.	8150	Yes	No	
VAPPRO 5 / Magna Chemical	00-017	No	Not tested	Failed German VIA
VAPPRO 10 / Magna Chemical	00-017	No	Not tested	Failed German VIA

MASTERBATCH

Product/Manufacturer	Project #	Nitrite-based	Multimetal Protection	Test Results
Verzone MB-5 / Daiwa Kasei Ltd.	00-033	Not tested	No	