



CERTIFIED TEST REPORT

Ref. I60933 Date May 16, 1996 Page 1 of 19

Purchase Order #:

Dr. Douglas H. Neale
S.A.I.C.
2200 Northwest Parkway
Suite 200
Marietta, Georgia 30067

Subject

Salt Spray (Fog) Resistance.

Object

To determine the effects of neutral salt spray on various metallized carbon steel test panels after 2000 hours of exposure.

Methods and Materials

Testing was conducted in accordance with ASTM B 117-90 using a Harshaw Chamber (ATS-0137). Two samples each of the following coatings were tested:

- Zn - Zinc Metallized Coating
85/15 - 85% Zn/15% Al Metallized Coating
70/30 - 70% Zn/30% Al Metallized Coating
Al - Aluminum Metallized Coating

Results

See Tables I* through IV for salt spray results. Pages 4 through 19 contain photographs of samples after 500, 1000, 1500 and 2000 hours of exposure.

*Table I contains initial coating thickness measurements (average of 4 readings).

Prepared by E. W. Sproat
Approved by S. Genculu
E. W. Sproat
Materials Testing
Semih Genculu, P.E.
Manager

Patricia T. DeBore
Notary Public, Cobb County, Georgia
My Commission Expires Jan. 29, 2000



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Table I
500 Hour Salt Spray Results

Coating	Sample	Pre-Test Coating Thickness (mils)	White Oxide	Red Rust	Creepage	Blistering
Zn	1	7.0	80%	None	None	None
	2	8.5	80%	None	None	None
85/15	1	9.3	30%	None	None	None
	2	7.2	30%	None	None	None
70/30	1	11.1	20%	None	None	None
	2	13.4	20%	None	5/16"	Few scattered (1/4")
Al	1	12.3	10%	None	None	None
	2	13.7	10%	None	None	None

Table II
1000 Hour Salt Spray Results

Coating	Sample	White Oxide	Red Rust	Creepage	Blistering
Zn	1	99%	None	None	None
	2	99%	None	None	None
85/15	1	60%	None	None	None
	2	60%	None	None	None
70/30	1	50%	None	See Blistering	15% Coverage (3/8" Dia)
	2	50%	None	See Blistering	25% Coverage (3/8" Dia)
Al	1	15%	None	None	None
	2	20%	None	None	Few Scattered (1/8" Dia)



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Table III
1500 Hour Salt Spray Results

Coating	Sample	White Oxide	Red Rust	Creepage	Blistering/Pitting
Zn	1	99%	None	None	None
	2	99%	None	None	None
85/15	1	60%	None	None	Scattered pitting (1/4" Dia.)
	2	60%	None	None	Scattered pitting (1/8" Dia.)
70/30	1	70%	None	See Blistering	25% Blister coverage (3/8" Dia.)
	2	70%	None	See Blistering	40% Blister coverage (1/2" Dia.)
Al	1	20%	None	None	None
	2	20%	None	None	25% Blister coverage (1/8" Dia.)

Table IV
2000 Hour Salt Spray Results

Coating	Sample	White Oxide	Red Rust	Creepage	Blistering/Pitting
Zn	1	100%	None	None	None
	2	100%	None	None	None
85/15	1	60%	None	None	15% Surface pitting (5/16" Dia.)
	2	60%	None	None	10% Surface pitting (1/8" Dia.)
70/30	1	70%	None	See Blistering	25% Blister coverage (3/8" Dia.)
	2	70%	None	See Blistering	40% Blister coverage (1/2" Dia.)
Al	1	20%	None	None	None
	2	20%	None	None	25% Blister coverage (1/8" Dia.)