

DFT

Dry Film Thickness

A123 vs PA2

A123

- Piece divided into 3 areas
- Different Material Categories (table 1)
 - Plate
 - Structural Shape
 - Tubular
- Different Coating Grades (Table 2)
- Different requirements based on wall thickness

TABLE 1 Minimum Average Coating Thickness Grade by Material Category

Material Category	All Specimens Tested Steel Thickness Range (Measured), in. [mm]					
	<1/16 [<1.6]	≥1/16 to <1/8 [≥1.6 to <3.2]	≥1/8 to <3/16 [≥3.2 to 4.8]	≥3/16 to <1/4 [≥4.8 to <6.4]	≥1/4 to <5/8 [≥6.4 to <16.0]	≥5/8 [≥16.0]
Structural Shapes	45	65	75	75	100	100
Strip and Bar	45	65	75	75	75	100
Plate	45	65	75	75	75	100
Pipe and Tubing	45	45	75	75	75	75
Wire	35	50	60	65	80	80
Reinforcing Bar	100	100

TABLE 2 Coating Thickness Grade^A

Coating Grade	mils	oz/ft ²	μm	g/m ²
35	1.4	0.8	35	245
45	1.8	1.0	45	320
50	2.0	1.2	50	355
55	2.2	1.3	55	390
60	2.4	1.4	60	425
65	2.6	1.5	65	460
75	3.0	1.7	75	530
80	3.1	1.9	80	565
85	3.3	2.0	85	600
100	3.9	2.3	100	705

A123

One coating grade below required
Grand average equal to requirement

PA2

- Based on 100 square footage area
- Representative as area goes up
 - < 300 each 100 sq ft area
 - <1000 3 100 sq ft areas
 - >1000 3 100 sq ft area plus 1 100 sq ft area

PA2

COATING THICKNESS RESTRICTION LEVELS

Thickness	Gage Reading	Spot Measurement	Area Measurement
Level 1			
Minimum	Unrestricted	As specified	As specified
Maximum	Unrestricted	As specified	As specified
Level 2			
Minimum	Unrestricted	As specified	As specified
Maximum	Unrestricted	120% of maximum	As specified
Level 3 (default)			
Minimum	Unrestricted	80% of minimum	As specified
Maximum	Unrestricted	120% of maximum	As specified
Level 4			
Minimum	Unrestricted	80% of minimum	As specified
Maximum	Unrestricted	150% of maximum	As specified
Level 5			
Minimum	Unrestricted	80% of minimum	As specified
Maximum	Unrestricted	Unrestricted	Unrestricted



All Plate	Area 1	Area 2	Area 3
A123 $\geq 5/8''$	5 spots	5 spots	5 spots
PA2	5 spots	5 spots	5 spots



	Area 1	Area 2	Area 3
A123	5 spots Plate	5 spots Plate	5 spots Plate
	5 spots St. Shape	5 spots St. Shape	5 spots St. Shape
	5 spots tube	5 spots Tube	5 spots tube
PA2	5 spots	5 spots	5 spots

Paint vs Galvanizing

Reactive Steel



19.8

6.4

13.8

5.8

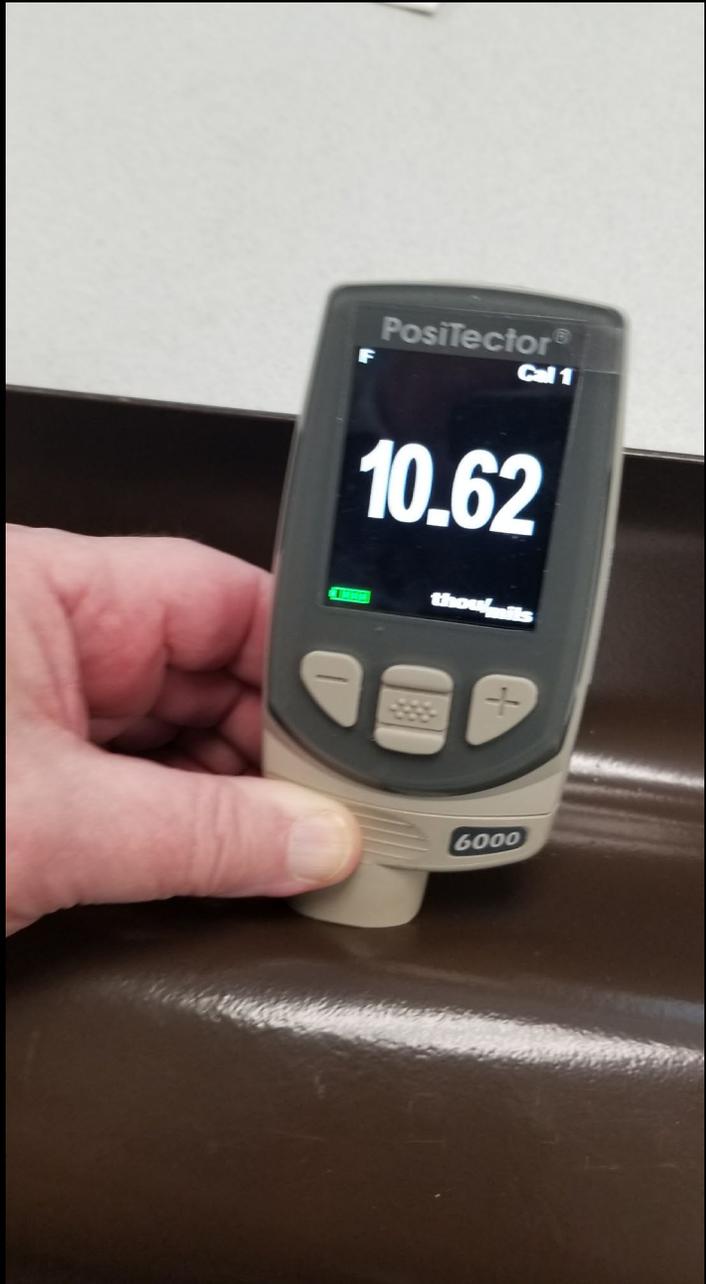
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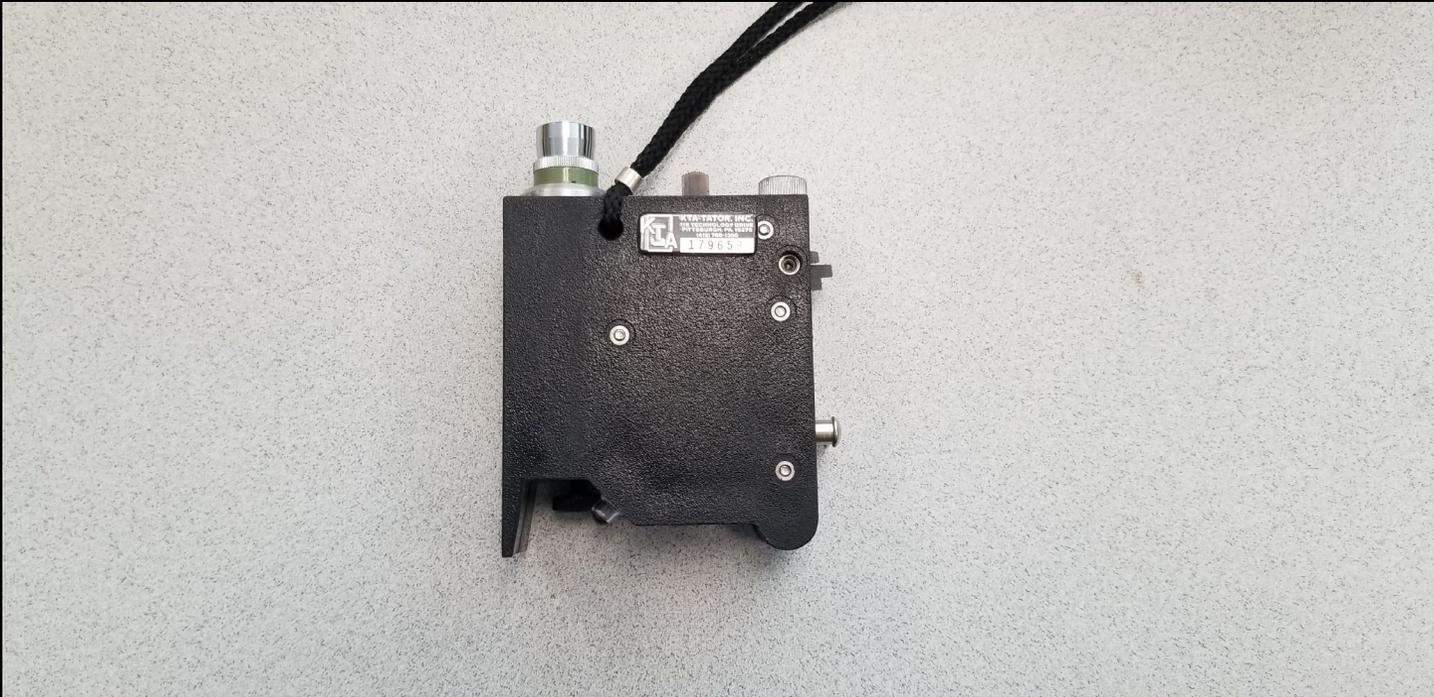
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EDIZIONE
1980
1180 A4











PosiTector®

D N Cal 1

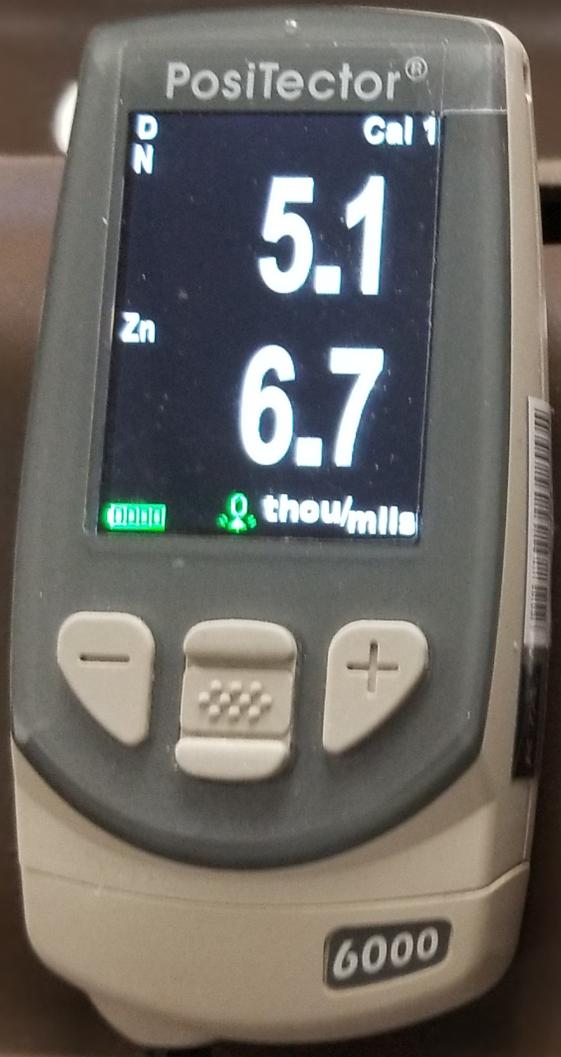
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Zn

4.9

thou/mil

6000



PosiTector®

D N Cal 1

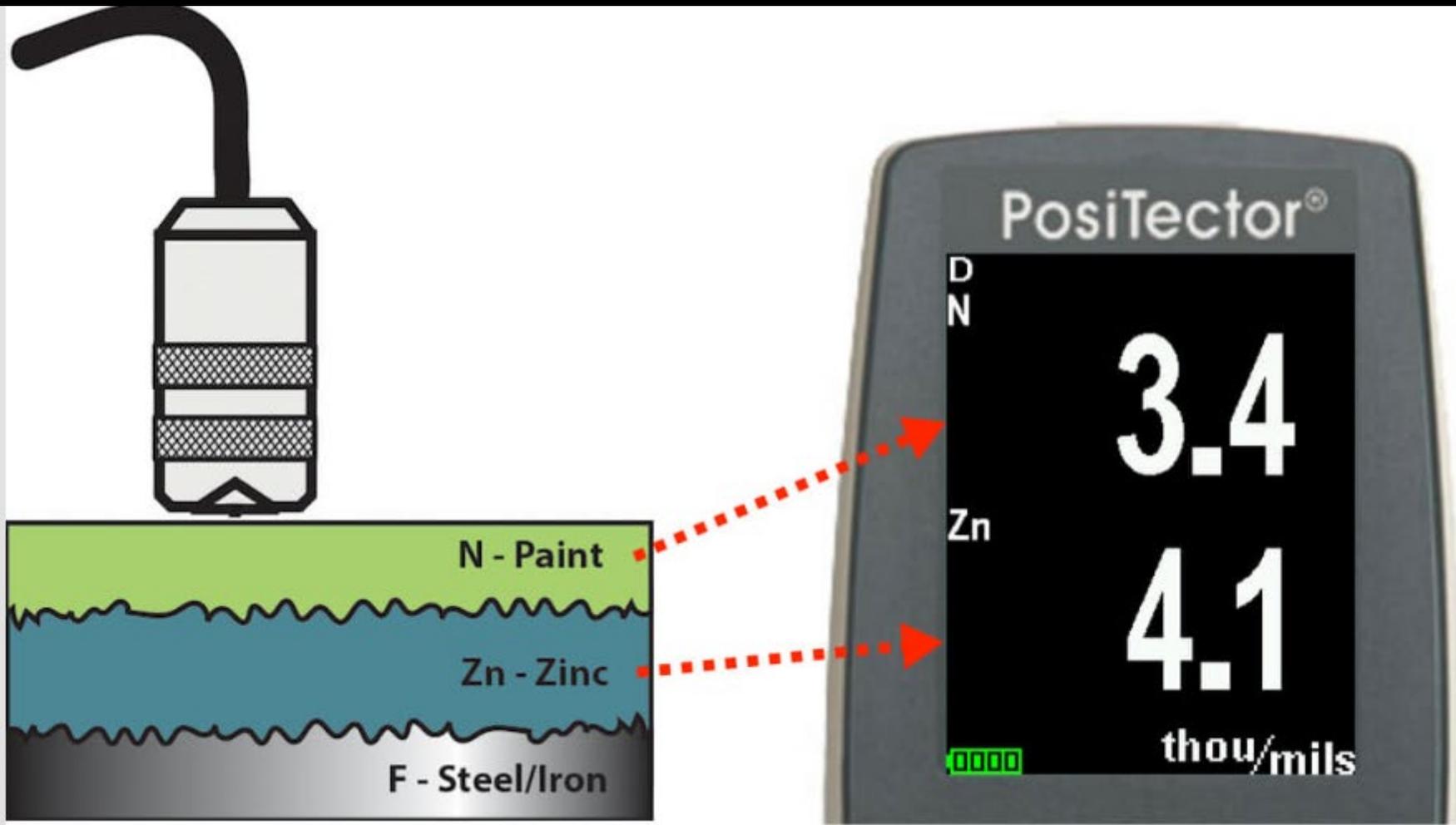
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Zn

6.7

thou/mils

6000



Magnetic Principle to measure total thickness over the ferrous substrate

Eddy Current Principle to measure thickness over the non-ferrous substrate(zinc)