



**SRP-55**

**Data Sheet**

## SRP-55 : High Phosphorous E-Nickel

### Deposit properties

Property	SRP-55
Hardness (as plated) (Rockwell)	48-52 Rc
Hardness (heat treated) <sup>(1)</sup> (Rockwell)	62-68 Rc
Taber wear index (mg/1000 cycles)	18-22
Taber wear index (mg/1000 cycles) <sup>(4)</sup>	10-15
Coefficient of friction	
vs steel (dry)	0.38
vs steel (lubricated)	0.20
Melting point ( °F)	1616
Salt spray performance (hours) <sup>(5)</sup>	1000
Corrosion resistance <sup>(6)</sup>	excellent
Intrinsic deposit stress (psi)	-4,500
Ductility	Pass (ASTM B-571)
Electrical Resistivity	70-100 micro ohm-cm
Density	7.75 g/cc
Internal Stress	Compressive
Uniformity	Excellent

(1) 750° F for 1 hour

(2) 570° F for 4 hrs + 750 F for 10 minutes

(3) 650° F

(4) Heat treated

(5) Per ASTM B-117 (1.0 mil thick)/ Undercoat of SRP-55 high phosphorus EN

(6) Exposure to various corrosive environments

### Process performance

Parameter	SRP-55
Plating Rate (mils/hr)	0.35-0.65
Solution longevity (metal turnovers)	8-10
Stability	good
Loading sensitivity	none