



Electroless Nickel Capacity List

DEPTH [mm]	WIDTH [mm]	LENGTH [mm]
950	650	890
1000	700	930
1550	1550	1450
1000	700	930
1100	3500	930
1600	1460	1460
2080	1850	680
1600	1500	1450
690	690	13000
950	840	13000
920	720	4020
2900	1450 Ø	
1100	1070	1050
1100	1100	7450
920	1640	3940
1450	2250 Ø	
1700	1340	3550
1880	400 Ø	
290	230	3360
2100	440	2170
1550	1540	6500

Heat Treatment Capacity List

Oven Dimensions		
Oven 1		
Depth	Width	Height
4	2	1.55
Oven 2		
Depth	Width	Height
2.5	1.7	1.5
Oven 3		
Depth	Width	Height
1.5	1.45	1.7

cbe+ Metal testing Capability List

- Bend test
- Microthickness
- Micro thick & diffusion
- Micro diffusion
- Microsection Bend
- Crosshatch test
- Phosphorus test
- Kesternich test
- Salt Spray
- Nitric Test
- Element test
- Ferroxyl test
- Demag test
- Hardness
- HOT HYDROCHLORIC



Attributes of coatings

Medium Phosphorous ENP

- Typical phosphorous content in the range of 6 to 9% by weight.
- High hardness as coated, in the range of 500-570 Vickers (525 to 600 Knoop)
- The ability to achieve 840 to 920 Vickers (850 to 950 Knoop) from thermal treatment at 400 °C
- Slightly magnetic
- Electrical resistivity in the range of 70 to 110 $\mu\Omega/cm$
- Salt spray corrosion in accordance with ASTM B117 on a 25 μm coated sample of greater than 96 hours
- Wear resistance in the range of 16 to 20 TWI (as plated) and 10 to 14 TWI when thermally treated to 400°C for 1 hour.
- Typical density is 8.1 g/cm³
- Process capability of max 20 Tonnes and 12 metres long
- Barrel plating capability to 40 kgs per load

High Phosphorous ENP

- Typical phosphorous content in the range of 10 to 12% by weight.
- High hardness as coated, in the range of 450 to 520 Vickers (475 to 550 Knoop)
- The ability to achieve 780 to 1000 Vickers (800 to 950 Knoop) from thermal treatment at 400 °C
- Non-magnetic
- Electrical resistivity in the range of 80 to 110 $\mu\Omega/cm$
- Excellent corrosion resistivity dependent on thermal treatments performed.
- Wear resistivity in the range of 18 to 24 TWI as plated and 10 to 15 TWI when thermally treated to 400°C for 1 hour.
- Typical density 7.8 g/cm³
- Process capability of max 20 Tonnes and 12 metres long

Nickel/PTFE (Niflor/Teflon)

- Typical phosphorous content in the range of 7 to 10% by weight
- PTFE content in the range of 1.5 to 10% by weight
- Lower hardness than the medium or high phosphorous coatings, in the range of 240 to 345 Vickers (250-350 Knoop)
- The ability to achieve 370 to 410 Vickers (375 to 425 Knoop) after thermal treatment to 350°C for 1 hour
- Coefficient of friction in the range of 0.01 to 0.2 μ
- Electrical resistivity in the range of 150 to 250 $\mu\Omega/cm$
- Process capability up to 900mm x 900mm x 900mm volume and 250 kgs, although specific projects can have tanks fabricated to suit a particular project.

