



ISO 9001 / 14001 Accredited

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# ENhanced Nickel

## *A family of chemically deposited electroless nickel (EN) coatings*

By varying the percentage of phosphorus, Anoplate provides a broad family of electroless nickel finishes that are formulated to meet precise engineering needs.

Strict control of bath parameters allows Anoplate to offer uniquely developed EN coatings with specific physical and metallurgical properties

The trademark property of Anoplate's Enhanced Nickel coatings is their uniform thickness of deposit. Whereas conventional electroplating of complex shapes requires conforming anodes – which are sometimes difficult and costly to construct – no special fixtures are required when plating with Enhanced Nickel.

Sharp edges (for example, the tops of threads) which build up during electroplating are covered by Anoplate's Enhanced Nickel with the same uniform thickness as recessed areas (for example, the roots of threads)

The process is effective on steel, stainless steel, copper, aluminum, zinc die casting, powdered metal, and non-conductive materials.

### **Enhanced Nickel Advantages**

- Uniform coverage –both internally and externally
- Holds close tolerances by preventing uneven buildup.
- Even coating of threads, grooves, sharp corners, blind holes, and other complex shapes.
- Variable phosphorus content permits formulations geared to specific engineering properties.



Parts can be closely racked in EN processing, making it cost-effective for high-volume runs.

### **EN Formulations Available at Anoplate**

Formulation	Phos. Weight %	Hardness RC As-Deposited	Deposit Characteristics
Enhanced LP9	4-6	58-62	Lowest electrical resistivity; hardest as-deposited; good joinability.
Enhanced MP6	6-9	45-50	Bright deposit; good corrosion resistance; (HRC 68-70 if baked)
Enhanced HP101	10-12	45-48	Excellent corrosion resistance; best ductility; non-magnetic
Enhanced PTFE	10-12	na	Low friction, self lubricating; contains 20-25% PTFE by volume.



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