

ENGINEERED COATINGS TO PROVIDE SURFACE ENHANCEMENT*

FOR THE FINAL FINISH

Our family of Electroless Nickel (EN) coatings is extremely diverse and appropriate for a large number of applications. We have both rack and barrel plating capabilities for electroless nickel applications, and are capable of both small and high volume production runs.



VAL-NIK 60

As deposited, this coating provides a hardness of Rc 56 - 58 – but it can be heat treated to Rc 64. A mid-phosphorous (5 - 7%) alloy results in a bright uniform coating that is tensile stressed and offers excellent atmospheric corrosion and petroleum resistance.

VAL-NIK 61

Another option for a mid-phosphorous (4 - 7%) nickel coating, it deposits at a hardness of Rc 57 - 60. A semi-bright uniform deposit, it offers superior wear characteristics and corrosion resistance and can be hardened to Rc 68.

VAL-NIK 70

This is a duplex coating of high phosphorous and low phosphorous nickel that provides barrier protection and wear resistance.

VAL-NIK 100

This electroless nickel with its high phosphorous (10 - 12%) alloy provides outstanding corrosion resistance. Val-Nik 100 is compressively stressed with a deposit hardness of Rc 48 - 52 and can be heat-treated to Rc 58. Non-magnetic and ductile, it has a melting point of 1630°F.

VAL-NIK 106

When wear resistance is key – Val-Nik 106 is the product for the job. This coating has a low phosphorous (2 - 4%) alloy that gives a uniform coating with enhanced adhesion qualities and impact strength. It also provides excellent petroleum and alkaline resistance.

VAL-NIK 121

With Teflon [particles of .4 microns in size dispersed throughout this composite coating (15 - 25% by volume)] Val-Nik 121 provides a hard uniform surface that is functional at temperatures up to 620°F. Applications needing a dry film lubricant, to be hydrophobic, or having “stick-slip” problems are perfect candidates for Val-Nik 121.

MOST COMMON PROBLEMS

CORROSION

Salt water protection
Food industry
Petroleum
Atmospheric
Chemical
Air exposure

WEAR

Abrasion
Adhesion
Metal-to-metal
Metal-to-polymer
Fretting wear
Component seizure

LUBRICATION

Stick-slip problems
Dry film lubricants
Oil retaining surfaces

VAL-KRO ELECTROLESS NICKEL COATINGS CAN BE PLATED OVER THESE SUBSTRATES:

- Carbon steels
- Copper alloys
- Stainless steels
- Alloy steels
- Tool steels



*ALL LISTED COATINGS ARE RoHS AND ELV COMPLIANT.