

"Ni-Comp 100"™

Composite PTFE/Electroless Nickel

"Ni-Comp 100"™ Is a composite electroless nickel plating process that deposits submicron particles of PTFE (polytetrafluoroethylene) commonly referred to as Teflon® throughout a hard electroless nickel matrix. The percentage of Teflon® in the plated deposit is typically 20-25% by volume and is uniformly dispersed as occluded particles within the coating.

"Ni-Comp 100"™

Provides many advantages, including but not limited to:

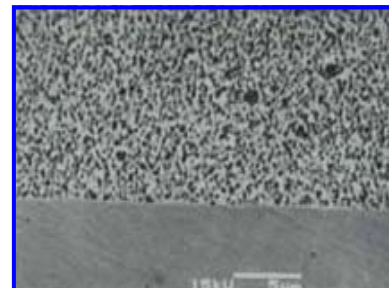
- Self lubricating, very low coefficient of friction
- Outstanding Release Properties
- Excellent corrosion resistance
- 100% deposit uniformity, even on complex geometries
- Ability to be plated on a wide range of substrates

Deposit Properties:

PTFE content:	20%-25% by volume
Hardness as plated:	300-350 VHN 100
(heat treated @ 300° C for 1 hour):	450-500 VHN 100
Corrosion resistance (ASTM-B-117):	500 hours @ .0005"
Stress:	compressive
Magnetic properties:	non-magnetic
Typical deposit thickness:	.0001"- .0005"

The unique properties of this coating can reduce or eliminate:

- Sliding wear
- Sticking and galling problems
- Injection molding release problems
- Non lubricated components



Cross Section SEM @ 3000x
Showing PTFE Particles in nickel matrix

Hi-Tec Plating, Inc.