

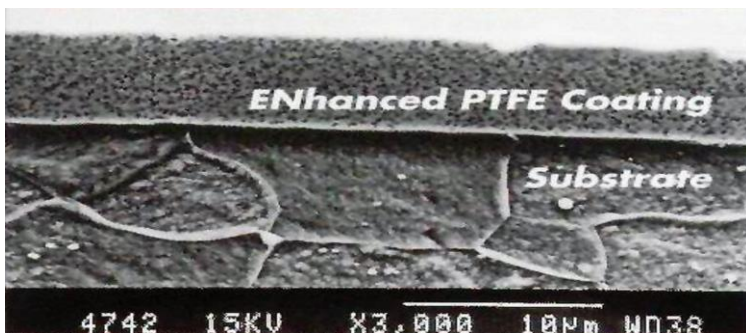
# ENhanced PTFE

## Unique formulation of co-deposited electroless nickel with PTFE

Anoplate's **ENhanced PTFE** coatings offer the uniform deposition and hardness of electroless nickel, *enhanced* with the lubricity and release characteristics of PTFE fluorocarbon.

Unlike immersion or spray PTFE coatings, Anoplate's **ENhanced PTFE** deposits uniformly on all surfaces and with controlled thickness. **ENhanced PTFE** evenly distributes the PTFE particles throughout the thickness of the coating so that coating will perform consistently throughout its wear life. It provides extended lubrication of moving, wear-prone, high-precision and inaccessible parts. It provides lubricity for parts exposed to solvents, working in cryogenic temperatures, or operating environments with unconventional lubricants.

Durable, versatile **ENhanced PTFE** coatings can be applied to nearly any metallic substrate material. Coating thickness can range from 0.0001"-0.0005". Depending on the application, Anoplate can apply thicker coatings using an electroless nickel underplate selected for extending performance conditions in sever applications.



### PROCESS COATING TYPES

- ❖ **ENhanced PTFE Type NT:** Hardness as-deposited
- ❖ **ENhanced PTFE Type HT\*:** Thermally treated for maximum hardness

\*Deposit may have a blue-yellow tint after thermal treatment



### SPECIFICATIONS

- ❖ AMS 2454
- ❖ Code T of MIL-DTL-38999

### APPLICATIONS

- ❖ Valves used in fluid delivery
- ❖ Pump rotors
- ❖ External fixation devices
- ❖ Mold & die cores and cavities
- ❖ Composite molds and layout fixtures

### PHYSICAL PROPERTIES

Matrix Material	<b>Amorphous Ni/ P Alloy</b>
Phosphorus Content	<b>9-11% by Weight</b>
PTFE Content	<b>20-25% by Volume 7-9% by Weight</b>
PTFE Particle Size	<b>Sub-micron</b>
Hardness, ENhanced NT	<b>250-350 HK<sub>100</sub></b>
Hardness, ENhanced HT	<b>375-425 HK<sub>100</sub></b>
Coefficient of Friction	<b>0.2 Max</b>
Melting Point	<b>1630°F (888°C)</b>
PTFE Breakdown	<b>572°F (300°C)</b>
Electrical Resistivity	<b>500 µΩ/in<sup>2</sup></b>
Corrosion Resistance**	<b>&gt;2,000 hours</b>

\*\*When tested per ASTM B117 with suitable undercoat