NOR-LUBE™ ELECTROLESS NICKEL

Pioneer Metal Finishing Nor-Lube™ is an Electroless Nickel coating with occluded PTFE/Teflon particles.

PTFE (polytetrafluoroethylene) is a synthetic polymer, well known for its low coefficient of friction and non-stick properties.

While the mechanical properties of PTFE/Teflon are only fair, Electroless Nickel, on the other hand, is well known for its excellent mechanical properties, such as hardness, wear resistance, and tensile strength.

This combination yields a coating that is both hard and lubricious, with a high degree of uniformity and excellent release properties.

Because of its unique combination of properties, this process is highly suitable for molds, dies and other applications requiring dry lubrication and/or good sliding wear characteristics.

NOR-LUBE™ BENEFITS & DATA:

Nor-Lube™ combines the strength and hardness of Electroless Nickel and the lubricity and non-stick properties of PTFE.

Process deposits are uniformly laid down, regardless of the geometry of the part. As a direct result of deposit uniformity, many post-plate finishing steps can be eliminated thus lowering overall finishing costs.

This process has PTFE evenly distributed throughout the thickness of the deposit. Therefore, if wear occurs, fresh particles of PTFE are exposed to keep the surface lubricated throughout the life of the coating.

Excellent bond strength can be obtained between this process and a wide variety of base metals.

COATING ATTRIBUTES:

❑ **Coefficient of Friction:**
0.1-0.15

❑ **Hardness:**
250-300 HK100g (as plated)
400-450 HK100g (after heat treatment for 1 hour at 600°F)

❑ **Wear Resistance:**
Baked panel:
15.2 mg/1000 cycles (Taber Wear Index) using CS-17 wheel and 1000 gram load

❑ **Electrical Resistance:**
150-250 mW cm

❑ **Corrosion Resistance:**
24 hours Neutral Salt Spray per ASTM B-117 (with a minimum of .0005". An undercoating of Medium Phos or High Phos E.N will increase this value)

❑ **Phosphorus Content:**
7-10% by weight

❑ **Part Dimensions:**
Maximum part dimension is 14" x 30"x 35".

Pioneer METAL FINISHING

486 Globe Avenue
Green Bay, WI 54304

1717 W.River Road
Minneapolis, MN 55411

525 Ternes Drive
Monroe, MI 48162

www.pioneermetal.com 800-944-7634