

低リンタイプ無電解ニッケル/PTFE複合めっき液

Low-phosphorus Type, Electroless Nickel/PTFE Composite Plating Solution

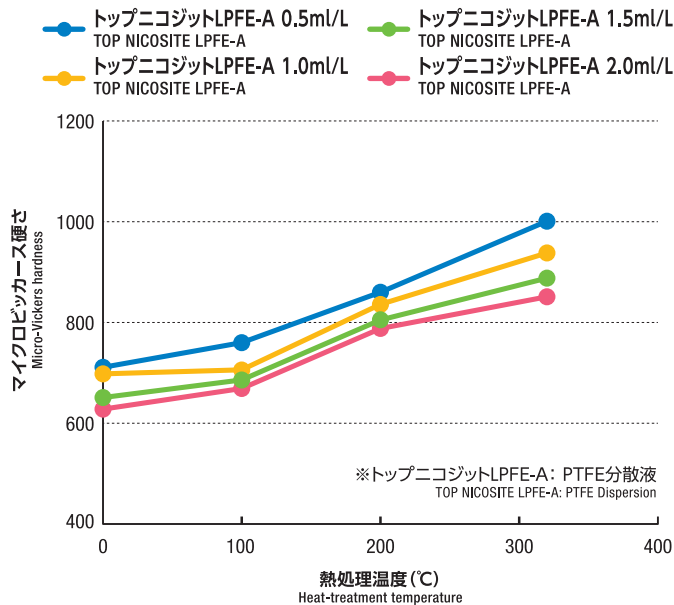
トップニコジットLPFE

TOP NICOSITE LPFE

- 析出皮膜は硬度が高く、摺動性に優れている
Excellent in film hardness, high sliding performance
- リン含有率が1~3wt%と低く、PTFE共析量も5vol%以下で硬度が高い
Phosphorus ratio: 1 to 3% by weight, PTFE ratio: below 5% by volume
- 析出皮膜はHv650~700で、320°Cの熱処理により約Hv1000が得られる
Film hardness: Hv 650 to 700 (as deposited), over approx. Hv 1,000 (after heat treatment at 320°C)

高い硬度

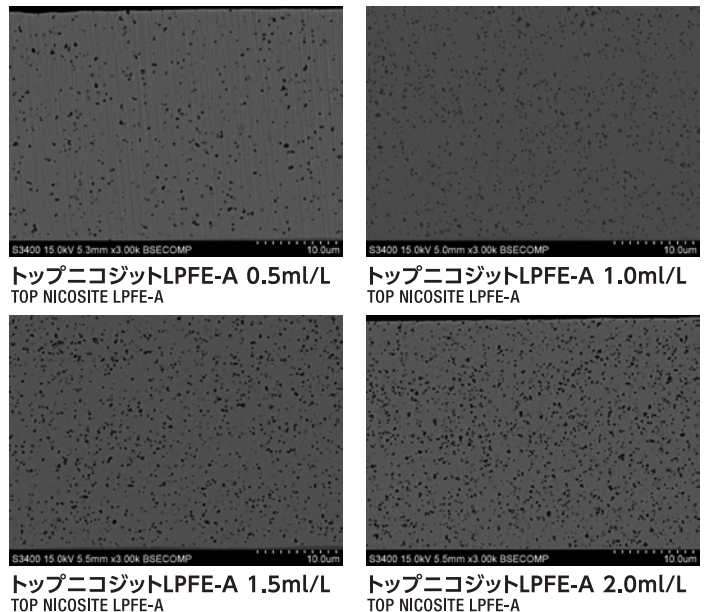
Great hardness



熱処理温度と皮膜硬度の関係
Relationship of heat-treatment temperature and film hardness

均一な共析

Excellent in co-deposition performance



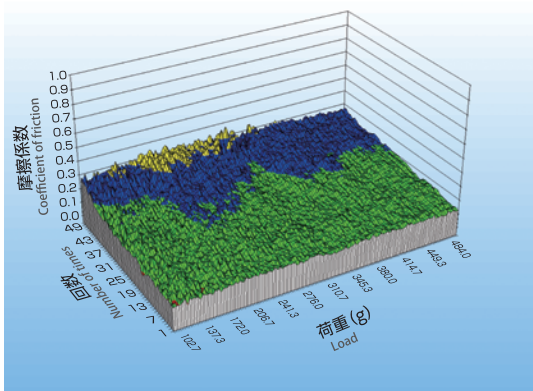
めっき皮膜の断面SEM像
Cross-sectional SEM image of deposit

優れた摺動性

Excellent in sliding performance

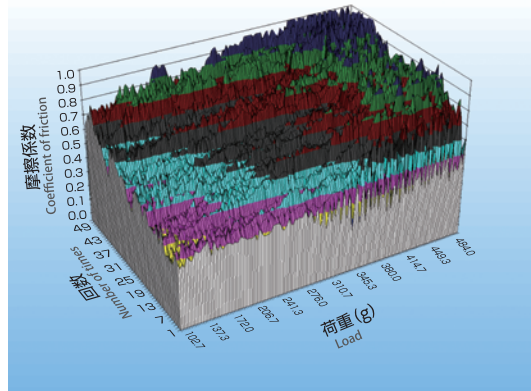
トップニコジットLPFE-A 1.0ml/L

TOP NICOSITE LPFE-A



低リン無電解ニッケル

Low-phosphorus electroless nickel plating



トップニコジットLPFE皮膜および低リン無電解ニッケル皮膜の摩擦係数
Coefficient of friction of plating film by TOP NICOSITE LPFE and low phosphorus type plating solution

測定機器 Evaluation method

荷重変動型摩擦摩耗試験機
トライボギアHHS-2000
新東科学株式会社
Friction and wear testing machine
Tribo Gear (HHS-2000),
Made by SHINTO Scientific Co., Ltd.

測定モード Evaluation mode

加減重往復測定
Addition and subtraction weight,
reciprocating-motion measurement

測定子 Measuring point

φ10mmSUSボール
Stainless steel ball, diameter 10mm

荷重 Weight

100gf (0.98N) ~ 500gf (4.90N)
to

往復回数 Reciprocating-motion

50回
times