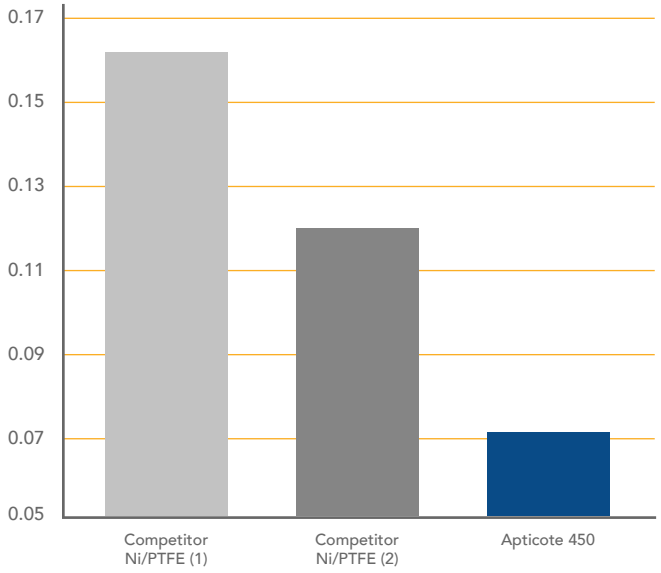
POETON
EST. 1898

APTICOTE
FROM POETON

NICKEL POLYMER COMPOSITE

Apticote 450, developed in Poeton's tribological laboratory, is a slick composite Nickel/PTFE coating that outperforms its rivals by a wide margin. The particle size of the PTFE has been reduced to sub-micron spheres, achieving the optimum % content and even distribution, giving the lowest friction coefficient without undermining the cohesion and hardness of the coating.

FRICTION COEFFICIENT
PIN-ON-DISC TEST CONFIGURATION



KEY FEATURES & APPLICATIONS

Primary features and suitable applications of Apticote 450 coatings include:

- High wear resistance
- Low friction
- Smooth , even coverage
- Superb anti-galling & anti-seizure
- Thickness range 5 - 20µm
- Superior aesthetics
- Good hardness
- Good load-carrying capacity
- Mould tools
- Connectors and fasteners
- Circuit breakers
- Valve seats and pump bearings
- Machine tools
- Medical moulds
- Cylinder liners
- Clutches and splines
- Spindles

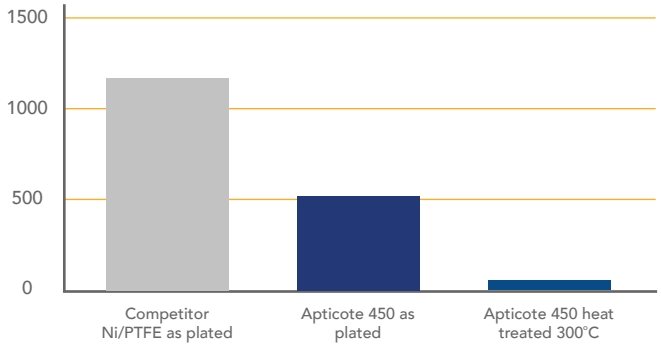
HARDNESS

As plated, Apticote 450 has a hardness of 170-200Hv, increasing to 290-320Hv after heat treatment at 300°C. The benefit is a load-carrying capacity superior to rival Ni/PTFE coatings.

SLIDING WEAR

Apticote 450 is not only slippery; it exhibits low sliding wear. In laboratory wear tests, at 10N load against a hardened steel pin, Apticote 450 shows one tenth the wear of a standard Ni/PTFE coating. After heat-treatment, the wear rate drops by another factor of 5. And with 30N load, with its higher load capacity, Apticote 450 is 40 times better than standard Ni/PTFE. Apticote 450 also provides some non-stick properties, particularly at temperatures around 250°C where conventional polymer coatings begin to soften and char.

ADHESIVE WEAR FACTOR
PIN-ON-DISC TEST CONFIGURATION - 10N LOAD



ANTI-GALLING & UNIFORMITY

Apticote 450 excels in preventing galling and seizure when stainless steel or titanium parts are fastened together or slide. On screw threads, internal or external, coverage is precise and even.

Near perfect replication of the thread form.

It provides uniform coverage, including corners, thread forms and bores.

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