



CYLINDER BORE COATING

Apticote Ceramic 2000 is the premier cylinder bore coating technology, providing superior performance to that given by conventional Ni/Ceramic composite electroplates. Power is increased, streaking is eliminated, and piston skirt and ring wear is reduced. Apticote 2000 is slicker, harder, better bonded to the substrate, has more precise coverage and provides a superbly honed finish. By using a specialised coating composition, the friction between the bore coating and the piston ring is reduced, and the lubricant retention on the surface is increased. Together, they provide for up to 3% increased engine power output.

ANTI-STREAKING / SCUFFING

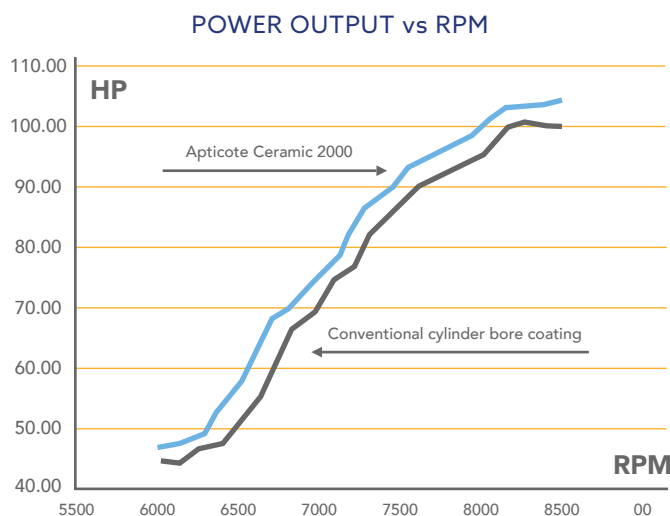
With certain proprietary refinements, Apticote Ceramic 2000 virtually eliminates streaking; a problem that often occurs with conventional bore coatings. It is caused by pick-up of nickel from the bore by the piston ring, which then scores the bore surface. Apticote Ceramic 2000 discourages cross-transfer of metal, even with chrome plated rings, and minimises any possibility of streaking.

HARDNESS

560-600Hv, controlled with precise chemistry and ceramic content. The ceramic filler is distributed evenly throughout the coating thickness, with the % content optimised for a combination of wear resistance and toughness.

KEY FEATURES

- High hardness
- Low friction
- Anti-streaking
- Little or no wear
- High precision
- Coats any surface
- Easy honing
- Compatible with any piston ring or piston
- Superb bonding to substrate



APPLICATIONS

1. Cylinder Liners

Poeton can coat all types of cylinder liner, using a multi-station plating unit. Flow rate, current density and the electrolyte chemistry are precisely controlled, ensuring consistent and reproducible results.

2. Rotary housings

Poeton coat hundreds of cast aluminium alloy rotary housings (including for use in UAVs), employing a stacking arrangement, ensuring the highest quality control. As with all our production, 100% bonding to the substrate is confirmed by regular destructive testing (saw cut, fracture) of representative test rings.

3. Blocks and four-bores

Cast engine blocks, including in-line, V6, V8 and V10 configurations and motorcycle four-bores are coated using dedicated manifolds. Bespoke tooling is required, being most cost-effective when there are multiple units to coat.

MOTORSPORT

Poeton coat all types of two-stroke and four-stroke barrels, be they for motocross, karting, snowmobiles, off-road or GP racing.

As well as the OEM market, we offer a quick turnaround service for the racing enthusiast. This 'Cylinder Express' service returns a worn cylinder to pristine condition, fully finished within a four day turnaround.

COATING PARAMETERS

- **Coating thickness** - The coating thickness after honing is 50-75µm
- **Honing** - The coating is precision diamond honed by skilled machinists, controlling finish and size
- **Substrates** - Apticote 2000 can be applied to cast iron, steel or aluminium alloys; liners, cylinders or blocks

Disclaimer

The information contained in this leaflet is intended for guidance. Whilst every effort is made to understand the environment in which the coating is designed to work, success can only be determined by trials and in-service testing.