

PLUNGER LUBRICATION FOR DIE CASTING MACHINES

Due to the elevated pressures generated at the shot-end of High Pressure Die Casting Machines (up to 10,000 psi), severe boundary lubricating conditions exist between the plunger tip and plunger sleeves at all times. To prolong plunger tip and sleeve life, and therefore to maximize productivity, Resource One developed a range of Plunger Lubricants that can maximize your Die Casting operations.

MINERAL OIL-BASED

Our LubeRite PL 1000 HY Plunger Oil is a high-viscosity, mineral based oil containing Extreme Pressure (EP) additives.

Viscosity at 40°C (cSt)	1010
Viscosity Index	87
Flash Point (°C)	234

Available in 20 liter pails and 200 liter drums



GRAPHITED MINERAL-BASED

Petrofer Piston Lubricant AP 270 contains micro-fine graphite particles that protect the sleeve and tip despite the loss of oil film lubrication at the injection stage of the Die Casting Process. Optimum wear protection is achieved using Piston Lubricant AP 270.



Appearance	Black Viscous Fluid
Density (kg/liter)	0.94
Flashpoint (°C)	280

Available in 20 liter pails and 200 liter drums

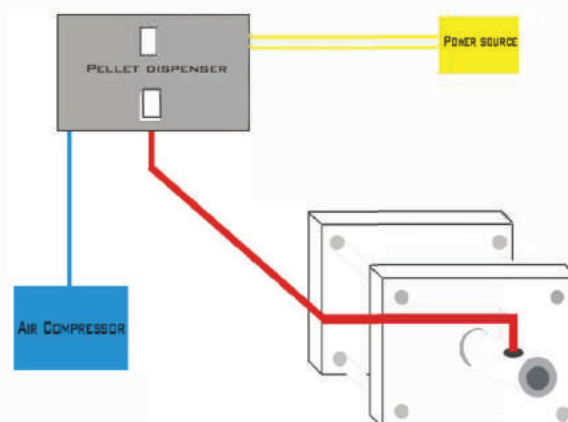
SOLID PISTON POWDER

Petrofer Piston Powder FA is a solid and beaded lubricant made of wax, designed to melt, spread and lubricate the tip and sleeve upon contact with the sleeve. This technology has provided the following benefits to its users.



Available in 12.5 kg pails

Our Piston Powder FA

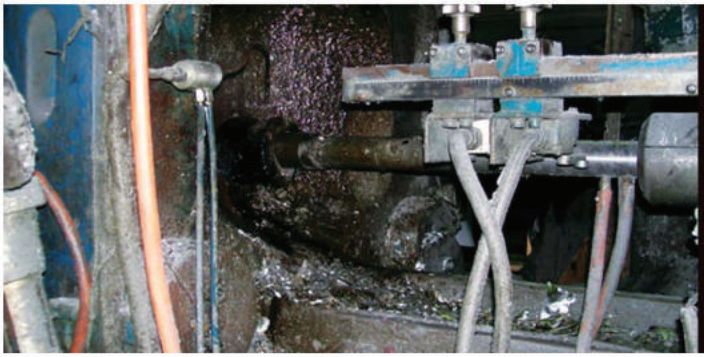


Typical Machine and Piston Powder Dispenser Set-up*

ADVANTAGES:

- Excellent lubrication cost per shot vs oil based systems → < 1.0 gram per shot on 350 ton machines
- Clean, oil-free machine, reducing environmental impact
- Lesser gas formation and porosity due to lower lubricating quantity required
- Reduced possibility of product staining
- Higher rate of recycling or re-melting Aluminum dross

DID YOU KNOW that Solid Lubricants, such as Graphite, may be dispersed into lubricating oils to provide extra wear protection at super-elevated temperatures and pressures?



OIL- BASED LUBRICATION



PISTON POWDER LUBRICATION

FIRE-RESISTANT WATER-BASED PLUNGER LUBRICATION

WATER-BASED

LubeRite PL77 was developed to provide die casters with a high quality, water-based plunger lube. It provides same lubrication features of oil base plunger lube, but with fire-retardant properties. It may be applied by drip or by spray methods.

TYPICAL PROPERTIES

Appearance	Off-white Liquid
pH	6.5 - 8.0
Specify Gravity at 25°C gm/ml	0.94 - 0.97
Brookfield Viscosity at 25°C, Cps	1100 - 1500

*Fire-Resistance of LubeRite PL77



Oil-Based



Water-Based

PLUNGER TIPS AND SLEEVES

Our Plunger Tips and Sleeves have been optimized using the top-quality steel, and produced according to highest quality standards. This ensures long life-time for both tips and sleeves, maximizing the Die Caster's productivity. Tips and Sleeves for Toyo, Toshiba and Ube machines are available.

	Tips	Sleeves
Material	Hardened Cast Iron	SKD61 H13
Hardness	45-48 HRC	HRC 62 (2-3 mm depth)
Size	50x80; 50x90; 60x90; 70x90; custom-sizes	For 125 ton to 1,650 ton machines
	 <p>Plunger Tips</p>	 <p>Plunger Sleeves</p>



Unit 1-5, Lot 10, East Science Ave.,
corner Trade Ave., Phase IV,
Laguna Technopark Inc., Binan, Laguna, 4024

Tel. No.: (049) 541-1734

Fax No.: (049) 541-0447

Email: resource_one@pltdsl.net

Website: www.resource1ph.com

ALSO AVAILABLE:

METALWORKING FLUIDS

Die Casting, Forging, Stamping Release Agents
Rust Preventives and VCI's
Cutting Oils and Coolants

AUTOMATIC LUBRICATORS

OIL SKIMMERS

SPECIALTY LUBRICANTS AND GREASES

High and Low Temperature Greases
Chain and Wire Rope Lubricants
Open Gear Greases
Synthetic Gear, Compressor, Hydraulic Oils
Fire Resistant Hydraulic Fluids