

## G-FORGE Fluid-25 (Forging Graphite Oil)

*(High performance semi-Colloidal dispersion of high purity ultra-fine micro-graphite in highly refined special mineral base oil, synthetic esters & EP additives)*

### DESCRIPTION

**G-FORGE Fluid-25** is a high-performance forging oil very useful in deep cavity dies and heavy forgings. It has been formulated to environmental protection & engineering norms blend with highly refined special mineral base oil, synthetic esters, EP additives & dispersion of high purity ultra-fine micro-graphite particles which increase their load carrying capacity and to reduce wear in conditions of boundary lubrication & provides excellent lubricity at elevated temperature up to 650°C. Its special formulation gives good adhesion to the surface of dies enabling metal flow in better way, thus giving good ejection properties along with improved die life. It can be used by spraying or manual applications. **G-FORGE Fluid-25** can be used in heavy extrusion is involved in hot, warm & cold forging or extrusion & circular rolling at high temperatures, no residual film is left on die, forms a thin film on the dies/plungers with superior release which provides a good cleanliness of working environment.

### FEATURES, ADVANTAGES & POTENTIAL BENEFITS

- Reduces friction, forging loads, high temperature parting & resistance to sticking-release properties.
- High purity ultra-fine micro-graphite increases load carrying capacity, reduces cleaning parts, reduces scrap, promotes long die life, extended piston & container life & gives the best forging performance.
- Remains stable at high temperatures and keeps cooling for better productivity
- Prevents scoring or seizure & wear, Improved die life, protection of dies and tools (coatings).
- Provides thin smooth coatings of graphite on hot surfaces.
- Passes through fine oilways and filters, assistance to metal flow.
- Extended lifetime of tools and gives longer relubrication intervals - dies, ejectors.
- Reduces maintenance costs, downtime & lower per tonnage lubrication cost.
- Ensures trouble-free running-in & Effective for Ferrous & Non-Ferrous Metals
- **G-FORGE Fluid-25** is non-bituminous, non-toxic additive and really taking account of the safety of property & people and the protection of the environment friendly.

### APPLICATION:

- Automotive, aeronautical, (defence, navy & aviation) oil & gas and medical forging.
- **Forging Processes:** Lubrication of dies & tools for steel forging & hot pressing, hot brass stamping, high strength light alloy press forging, stamping, hammer, die upsetting tools, closed die.
- **Extrusion presses:** Lubrication of dies and tools for Steel, aluminium, brass, yellow metals, titanium and super alloys.
- **Pressure Die-casting:** Die face lubrication and release, lubrication of ejectors, core slides and plungers. **Gravity Die-casting:** Lubrication of core slides and pins.
- **High Temperature Bearing Lubrication:** Conveyor chains of baking, enamelling and annealing ovens, kiln car bearings, blast valve stems, tyres of rotary kilns.
- **Assembly Lubrication:** Pistons, gudgeon pins, crank shaft bearings, camshafts, valve stems & guides. **Running-In:** I.C. Engines, compressors and pumps.
- **Glass Container Manufacture:** Mould and neck ring lubrication.



## PROPERTIES OF G-FORGE FLUID-25

CHARACTERISTICS	SPECIFICATIONS
Product Description	High performance semi-Colloidal dispersion of high purity ultra-fine micro-graphite in highly refined special mineral base oil, synthetic esters & EP additives
Color & Appearance	Dark Grey Smooth Oily (Black Liquid)
Base oil type	Refined special mineral oil with synthetic esters
Diluents :	mineral oil, paraffin, white spirit
Graphite Quality	High purity ultra-fine micro-graphite 4 to 5 micron
Solid Lubricants content %	Ultra-fine micro-graphite min 25 to 30 %
Solid Lubricants (graphite) particle sized	below 10 micron (4 to 5 micron)
Specific Gravity / Density @ 29.5°C , kg/m <sup>3</sup>	0.960 to 1.200 gm/cc
Viscosity, mPa.s (Brookfield 20°C, 20rpm)	~950 to 1150
Viscosity @ 40°C	220
Nitrogen residue :	ca. 8.2%
Flash Point (ASTM D-92)	+230°C
Fire Point	+260°C
Fixed Carbon	95-98 % min
Ash content	Less than 0.8 to 1%
Volatile matter	Less than 0.8 to 1%
Odour	Normal & Pleasant
Sulphur Components	Below 0.25%
Sedimentation	Should more than less than 0.5% after 4 weeks
Shelf life under original seal	2 years
Storage temperature in Celsius	5°C to 40°C Store away from heat and flames. product should be stored under cover in clean, dry conditions and protected from frost

**Additional Information:** When converting to new oil kindly flush previous oil before filling, all previous lubricant should be removed as much as possible prior to operation. During initial operation, lubrication intervals should be monitored closely to ensure all previous lubricant is purged.

**POWERMAXX LUBE INDIA**

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