APG-0, 1, 2

ALL PURPOSE GREASE

WITH

ANTI-FRICTION TREATMENT

The **APG-0, 1** and **2** greases are sulfonate based all purpose greases developed from the latest technology. The combination of the sulfonate's natural lubricating properties with the ANTI-FRICTION TREATMENT provides far superior performance when compared to other types of greases such as lithium complex, aluminium complex and polyureas as well as other sulfonate based greases. The **APG** greases are also available in 000 and 00 grades.

The **APG-0, 1** and **2** greases stand out with the following properties :

- Outstanding extreme-pressure (E.P.) and anti-wear performance
- Optimum protection of surfaces subjected to sliding and rubbing, vibration or oscillation, such as bucket pins, pivot pins and other chassis parts
- Superior mechanical stability
- Excellent thermal stability
- Excellent water resistance
- Very good adhesion
- Superior rust and corrosion resistance
- Excellent oxidation resistance

The **APG-0, 1** and **2** greases are designed to be used in different types of applications: industrial, automotive, heavy machinery, recreational vehicles and others.

The **APG-2** grease can be safely used for the lubrication of electric motor bearings as opposed to conventional EP greases. Therefore, the use of **APG-2** eliminates the need for a grease specifically designed for electric motors thus decreasing inventory and risk of errors.

The different **APG** greases have the following caracteristics :

- **APG-2** :
  - Excellent high temperature properties; up to 230 °C (450 °F)
  - Outstanding resistance to water, heavy loads and impacts
  - Designed to prevent the penetration of contaminants into bearings
  - Ideal for bearings and pin bushings
- **APG-1** :
  - Wide operating temperature range : from -40 °C to 180 °C
  - Ideal for automatic greasing systems operating down to -20 °C
- **APG-0** :
  - Outstanding low temperature pumpability; down to -46 °C with a grease gun
  - Ideal for automatic greasing systems operating down to -40 °C
  - May be used to lubricate leaking gear boxes

The **APG-0, 1** and **2** greases advanced technology allows for :

- Minimum friction and wear
- Lower relubrication frequency
- Lower overall grease consumption

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ENVIRONMENTAL INFORMATION :

The **APG-0, 1** and **2** sulfonate based greases contain no heavy metals and no harmful nor environmentally undesireable additives.

TECHNICAL DATA

GENERAL PHYSICAL PROPERTIES :	APG-0	APG-1	APG-2
▪ N.L.G.I. grade:	0	1	2
▪ Colour :	amber	amber	amber
▪ Thickener :	sulfonate	sulfonate	sulfonate
▪ Dropping point, ASTM D2265, °C (°F) :	>290 (>555)	>300 (>572)	>315 (>600)
▪ Base oil :			
- Type :	mineral	mineral	mineral
- Viscosity @ 40°C, cSt :	23.4	39.6	182
- Viscosity @ 100°C, cSt :	4.7	6.4	16.5
- Viscosity index :	120	111	95
MECHANICAL STABILITY :			
▪ Consistency, ASTM D217, worked penetration :			
- 60 cycles, mm/10 :	370	325	275
- 100,000 strokes, mm/10 :	363	320	277
- 10,000 strokes with 50% H_2O, mm/10 :	362	316	282
▪ Shell roll stability test ;			
- ASTM D1831, % change :	3.7	3.7	3.3
OXIDATION RESISTANCE :			
▪ Oxidation stability, ASTM D942 ;			
- Pressure drop, psi / 100 hours :	1	1	1
- Pressure drop, psi / 500 hours :	4	3	3
- Pressure drop, psi / 1000 hours :	9	8	8
▪ Wheel bearing test, ASTM D3527, hours :	100	100	100
RUST AND CORROSION RESISTANCE:			
▪ Rust test rating, ASTM D1743 :	pass	pass	pass
▪ Salt Fog test, ASTM B117, film: 1mil., hours :	> 300	> 300	> 300
SEPARATION CHARACTERISTICS:			
▪ Oil separation @ 25°C (77°F), ASTM D1742, % weight :	0.2	0.2	0.2
▪ Wheel bearing leakage test, ASTM D4290, gr. :	4.0	4.0	3.5
WATER RESISTANCE :			
▪ Water washout, ASTM D1264 ;			
% loss @ 79°C (174°F) :	3,0	3,0	1.5
LOW TEMPERATURE PROPERTIES:			
▪ Low temperature torque, ASTM D4693 @ –40°C, N.m. :	2.2	2.2	4.3
▪ US Steel Mobility Test @ 150 psi ;			
- @ –18°C, g/min :	287	89.6	5.13
- @ –23°C, g/min :	139	46.9	2.44
- @ –29°C, g/min :	68.5	24.1	0.85
- @ –35°C, g/min :	16.5	6.42	N.D.
- @ –40°C, g/min :	1.2	N.D.	N.D.
EXTREME-PRESSURE AND ANTI-WEAR PROPERTIES :			
▪ Timken OK Load, ASTM D2509, kg (lbs) :	32 (70)	32 (70)	32 (70)
▪ 4 ball wear test, ASTM D2266 ;			
- Scar (mm), 40 kg, 1200 RPM @ 75°C, 1 hour :	0.30	0.30	0.30
▪ 4 ball EP test, ASTM D2596 ;			
- load / wear index :	65	75	76
- weld point, kg :	560	615	620
OPERATING TEMPERATURE RANGE :			
▪ Minimum, °C (°F) :	-46 (-50)	-40 (-40)	-32 (-26)
▪ Maximum, °C (°F) :	120-150 (250-300)	150-180 (300-350)	205-230 (400-450)
▪ Dispensing temperature, grease gun, °C (°F) :	-40 (-40)	-30 (-22)	-10 (-14)
▪ Dispensing temperature, automatic greasing system, °C (°F) :	-40 (-40)	-20 (-4)	Not recommended

Sizes	Product numbers		
	APG-0	APG-1	APG-2
450 g	130450	131450	132450
2 kg	130002	131002	132002
17 kg	130017	131017	132017
55 kg	130055	131055	132055
180 kg	130180	131180	132180

The data provided in this document is for information purposes only. **HIPERTECH INC**, having no control over the application and the use of this product, limits its responsibility to the quality of the product supplied.

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