



# Synthetic Gear PAO-1K Series

## Performance Filtration

1440 Hwy 121 Ste 4  
 Lewisville, TX 75067  
 800-866-2959 or 972-434-2959  
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## Product Information - MSDS Data Sheet

### SYNTHETIC GEAR/BEARING LUBRICANT

#### GENERAL DESCRIPTION

**Syngear PAO-1K** Series gear lubricants are formulated with synthetic base stocks and fortified with select additive systems to enhance their exceptional performance. The PAO base fluid used has outstanding oxidation and thermal stability, naturally high viscosity index and excellent low temperature pumpability and fluidity. The unique additive system used provides increased oxidation stability, extreme pressure properties, and maximum protection against wear, rust, corrosion and foaming.

In today's world of efficiency improvements, there has been much emphasis placed on reducing energy requirements for equipment used in plant operations. **Syngear PAO-1K** synthetic gear lubricants have proven to reduce friction, thereby reducing the input power to operate the equipment or increasing the available power output. The reduction of fluid friction results in lower lubricant operating temperatures, prolonging the life of both the lubricant and the equipment. The additive system used in this product not only reduces frictional drag, but also protects gears against failures associated with heavy loading and meets the requirements of U.S. Steel 224 specification, AGMA 9005-D94 specification and API GL-4 Gear Service Category.

#### APPLICATION

**Syngear PAO-1K** Series gear lubricants are recommended for use in all types of enclosed gearing as well as plain and rolling element bearings. These lubricants are ideal for heavily loaded low speed gears and bearings where boundary or elasto-hydrodynamic lubrication (EHL) conditions exist, such as in mine hoist gear reducers. They are particularly recommended for gearboxes which operate under excessively high temperatures where good quality conventional oils rapidly oxidize. **Syngear PAO-1K** gear lubricants may also be used in certain open gear applications, but it is recommended that Summit lubrication engineers be consulted to select the most effective method of application.

**Syngear PAO-1K** Series gear lubricants are compatible with most seal materials, paints and plastics, including nitrile Buna N, neoprene, viton, teflon, polyethylene, polyurethane ether, fluorocarbon, polyacrylate, polysulfide, ethylene acrylic, epoxy, plastisol, PVC, acrylic paint and lacquer.

Syngear PAO-1K-	32	68	100	150	220	320	460	680	1000
<b>PFI Part Number</b>	<b>4948</b>	<b>4949</b>	<b>3602</b>	<b>3603</b>	<b>3604</b>	<b>3605</b>	<b>3607</b>	<b>3608</b>	<b>3609</b>
<b>Specific Gravity 60°F</b>	0.849	0.859	0.862	0.874	0.877	0.885	0.882	0.892	0.890
<b>ISO Grade</b>	32	68	100	150	220	320	460	680	1000
<b>AGMA Number (EP)</b>	-	2	3	4	5	6	7	8	8A
<b>Viscosity:</b>									
<b>Cst @ 40°C</b>	31.0	67.1	95.7	142	213	307	437	630	947
<b>Cst @ 100°C</b>	5.8	9.9	12.9	17.3	23.2	30.2	37.4	49.6	66.2
<b>Viscosity Index</b>	132	130	132	133	134	134	130	134	135
<b>Pour Point °F (°C)</b>	-76 (-60)	-70 (-57)	-60 (-51)	-60 (-51)	-45 (-43)	-40 (-40)	-35 (-37)	-30 (-34)	-20 (-28)
<b>Flash Point °F (°C)</b>	445 (230)	445 (230)	445 (230)	445 (230)	430 (221)	425 (218)	435 (224)	416 (210)	400 (204)
<b>Copper Corrosion</b>	1B	1B	1B	1B	1B	1B	1B	1B	1B
<b>Rust Test</b>	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
<b>Timken OK, lbs</b>	60	65	65	65	65	65	65	65	65
<b>4-Ball Weld, lbs</b>	200	200	200	315	315	315	315	315	400
<b>4-Ball Scar, mm</b>	.50	.30	.30	.39	.34	.30	.30	.30	.30

The information contained in this document is the result of careful testing in our laboratories, complemented by selected literature. It does not in any way constitute a guarantee, nor does it serve as a license to operate any patent. Due to widely varying conditions of product use, which are beyond our control, it is strongly recommended that the product be tested for suitability.

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