

All-Syn Gear

Synthetic Gear Lube

No. 212

ISO 32 to1500

DESCRIPTION:

All-Syn Gear is a polyalphaolefin (PAO) synthetic gear lubricant specifically formulated for severe service. This product provides exceptional oxidation and thermal stability, a high natural viscosity index and a very low pour point. **All-Syn Gear** provides exceptional performance in both high and low temperature applications. The additive system used in this product not only reduces frictional drag, but also protects gears against failures associated with heavy loading. This unique formulation keeps critical parts clean by preventing sludge and deposits even under sustained high temperature operation. It maximizes power transmission and provides excellent energy savings through increased fluid efficiency and less frictional drag.

COMPOSITION:

All-Syn Gear contains a technically advanced additive system designed to reduce friction, wear and corrosion consisting of:

PAO Synthetic Oil
Oxidation Inhibitors
Anti-Wear Additives

Anti-Foam Additives
Pour Point Depressants
Rust Inhibitors

Demulsibility Additive
Lubricity Additives
Corrosion Inhibitors

TYPICAL APPLICATIONS:

All-Syn Gear is recommended for use in all types of enclosed gearing as well as plain and roller element bearings. These lubricants are ideal for heavily loaded low speed gears and bearings where boundary or elasto-hydrodynamic lubrication conditions exist, such as in mine hoist gear reducers. They are particularly recommended for gear boxes which operate under excessively high temperatures where conventional oils rapidly oxidize such as:

Ring Gears
Hypoid Gears
Spur Gears
Industrial Gears

Worm Gears
Spiral-Bevel Gears
Speed Reducers
Straight Bevel Gears

Helical Gears
Power Drivers
Angular Gears
Bevel Gears

PERFORMANCE CAPABILITIES:

All-Syn Gear meets and exceeds the requirements of:

U. S. Steel 224

AGMA 9005-D94

API GL4 Service Category

TYPICAL SPECIFICATIONS:

ISO Grade	32	68	100	150	220
Gravity, ° API:	0.849	0.859	0.862	0.874	0.877
AGMA Viscosity Rating	-	2 EP	3 EP	4 EP	5 EP
API Service Designation	GL4	GL4	GL4	GL4	GL4
Viscosity @ 40°C, cSt:	31	67	95.7	142	213
Viscosity @ 100°C, cSt:	5.8	9.9	12.9	17.3	23.2
Viscosity Index	132	130	132	133	134
Pour Point, °F	-76	-70	-60	-60	-45
°C	-60	-57	-51	-51	-43
Flash Point, COC, °F	445	445	445	445	440
°C	230	230	230	230	227
Copper Corrosion	1A	1A	1A	1A	1A
Rust Test	Pass	Pass	Pass	Pass	Pass
Timken Load Test, lb.:	60	65	65	65	65
Four-Ball Weld, lbs.	200	200	200	315	315
Four-Ball Scar, mm	.50	.30	.30	.39	.34

ISO Grade	320	460	680	1000	1500
Gravity, ° API:	0.885	0.882	0.859	0.890	0.892
AGMA Viscosity Rating	6 EP	7 EP	8 EP	8A EP	9EP
API Service Designation	GL4	GL4	GL4	GL4	GL4
Viscosity @ 40°C, cSt:	307	437	630	947	1513
Viscosity @ 100°C, cSt:	30.2	37.4	49.6	66.2	95.8
Viscosity Index	134	130	134	135	143
Pour Point, °F	-40	-35	-30	-20	-17
°C	-40	-37	-34	-28	-27
Flash Point, COC, °F	435	435	416	400	490
°C	224	224	210	204	254
Copper Corrosion	1A	1A	1A	1A	1A
Rust Test	Pass	Pass	Pass	Pass	Pass
Timken Load Test, lb.:	65	65	65	65	65+
Four-Ball Weld, lbs.	315	315	315	400	400
Four-Ball Scar, mm	.30	.30	..30	.30	.30

Values shown here are typical, and may vary.

All-Syn Gear lubricants are compatible with most seal materials, paint and plastics, including nitrile Buna N, neoprene, viton, Teflon, polyethylene, polyurethane ether, fluorocarbon, polyacrylate, polysulfide, ethylene acrylic, epoxy, plastisol, PVC, acrylic paint and lacquer.

PERFORMANCE PRODUCTS GUARANTEED