TDS:
(Technical Data Sheet)

Global Universal Gear Oil Series; GGO-681000

Global Universal Gear Oils utilizes a new generation supreme additive technology combined with the purest high quality Group II and PAO base oils available. Global Universal Gear oils are premium quality extreme pressure gear lubricants, manufactured from the highest quality base oils combined with extreme pressure additives of the Sulphur-phosphorous type. This combination provides very high load-carrying properties and affords maximum protection for gear teeth in severe service conditions.

Special Features:

Global Universal Gear oils are inhibited against rust and foaming, and possess very good water separating characteristics (demulsibility). Global Universal Gear meets the requirements of DIN 51517 Part 3, US Steel 224, AGMA 250.04. Global Universal Gear oils are recommended for the lubrication of bearings and enclosed gears operating under extreme or shock-load conditions.

Global Universal Gear oils are produced in ISO viscosity grades of 68, 100, 150, 220, 320, 460, 680 and 1000.

Technical Characteristics:

Characteristics						
Testing Performed	**Method**	**ISO 100**	**ISO 150**	**ISO 220**	**ISO 320**	**ISO 460**
SAE Weight	SAE	75W90	80W90	75W140	85W140	**N/A**
AGMA Rating	**AGMA**	3EP	4EP	5EP	6EP	7EP
Density Kg/L @ 15.0° C	D-1298	0.903	0.910	0.884	0.914	0.92
Viscosity, est@ 40° C	D-445	100	150	220	320	460
Viscosity Index	D-2270	145	106	160	106	106
Flash Point, COG, (°F)	D-92	330	430	315	435	435
Fire Point, COG, (°F)	D-92	365	460	355	480	480
Pour Point, (°F)	D-97	-50	-20	-50	-5	-5
Total Acid Number, mg KOHg	D-974	4.7	**4.7**	**4.7**	**4.7**	4.7
Foaming Tendency						
Sequence I 75°F, ml		0/0	0/0	0/0	0/0	0/0
Sequence II200°F, ml	D-892	*010*	0/0	0/0	0/0	0/0
Sequence III 75°F, ml		0/0	0/0	0/0	0/0	0/0
Four Ball, Wear Scar Dia. **Mm**	D-2266	0.28	0.28	0.28	0.28	0.28
Timken, OK Load, lbs	D-2782	70	70	70	70	70
FZG, Pass Stages	DIN51354	13	13	13	13	13
Rust Test						
Procedure A (Distilled Water)	D-665	Pass	Pass	Pass	Pass	Pass
Procedure B (Salt Water)		Pass	Pass	Pass	Pass	Pass
Copper Strip Corrosion Test, 3hrs	D-130	1a	1a	1a	1a	1a
Falex EP Continuous Load	D-3233					
Procedure A (Failure Load, lbs)		75	75	75	75	75
Oxidation Test						
Viscosity Increase after 312 hrs @203°F/95°C	D-2893	2%	2%	2%	2%	2%
L-60-1 Thermal Oxidation Test (% Viscosity Index)	D-5704	23	23	23	23	23
Demulsibility Test						
Free Water, ml		85	85	85	85	85
% Water in Oil	D-2711	0.5	0.5	0.5	0.5	0.5
Emulsion, ml		**Nil**	**Nil**	**Nil**	**Nil**	**Nil**