# WHITMORE'S

## **TECHNICAL DATA SHEET**

### PARAGON™ HEAVY DUTY ENCLOSED GEAR OIL

Extreme pressure protection is assured with Paragon<sup>™</sup> Enclosed Gear Oil, even under the most severe conditions of high load, shock load, and reversing motion.

Enclosed gearing systems in surface mining and mineral processing equipment are subjected to unique and demanding operating conditions. Whitmore's Paragon<sup>™</sup> Enclosed Gear Oil is formulated specifically for tough mining applications. Also suitable for severe industrial applications.

All Paragon<sup>™</sup> Enclosed Gear Oil grades meet the requirements of DIN 51517-3.

#### **BENEFITS:**

- ANTIWEAR protects even under severe conditions to extend gear life.
- ANTIFOAM protects seals, lowers temperatures, and aids in extending oil life.
- LONG LIFE Reduces disposal and overall cost.
- TACKY allows a protective film of lubricant to cling to gearing surfaces even during long shutdowns.

#### **APPLICATIONS:**

Paragon<sup>™</sup> Enclosed Gear Oil is designed for use in heavily loaded gearboxes including planetary drive systems and PIV chain drives.

ASTM #				-	TYPI	CAL CHA	RACTERIS	TICS			_
	Grade	68	100	150	220	320	460	500	680	1000	1500
	AGMA Grade	2EP	3 EP	4 EP	5 EP	6 EP	7 EP	7 EP	8 EP	8A EP	9 EP
D-445	Kinematic Viscosity cSt @ 40°C cSt @ 100°C	70 9	106 12	159 15	235 22	345 27	475 31	514 32	736 37	1,040 52	1,630 65
D-2161	Saybolt Viscosity SUS @ 100°F SUS @ 210°F	343 56	548 68	749 79	1,295 110	1,783 131	2,512 157	3,038 168	3,980 179	5,577 245	8,831 315
D-2270	Viscosity Index	99	106	91	111	101	96	94	82	97	91
D-97	Pour Point, °F °C	-20 -29	-20 -29	-10 -23	0 -18	5 -15	5 -15	10 -12	15 -9	20 -7	25 -4
Gardner Method	Density, lb/gal @ 60°F (15.5°C) Specific Gravity g/cc @ 60°F (15.5°C)	7.40 0.888	7.44 0.893	7.46 0.896	7.50 0.900	7.52 0.905	7.55 0.906	7.77 0.932	7.80 0.937	7.80 0.937	7.84 0.941
D-92	Flash Point, °F °C Cleveland Open Cup	400 204	425 218								
D-2782	Timken OK Load, lb	60	65	65	65	65	70	70	70	70	70
D-2783	Four Ball EP Weld Point, kg	500	500	500	500	500	500	500	500	500	500
D-4172	Four Ball Wear Scar Width, mm @ kgf	0.60	0.60	0.60	0.50	0.50	0.50	0.50	0.50	0.50	0.50
D-665	Rust Test	Pass									
D-130	Copper Strip Corrosion	1B									
D-2893	Oxidation for Lubricating Oils, % Viscosity Change	<6	<6	<6	<6	<6	<6	<6	<6	<6	<5
The el	FZG Test, Stages Passed	N/A	N/A	N/A	>12	>12	>12	>12	>12	>12	>12

The above are average values. Minor variations which do not affect product performance are to be expected in normal manufacturing.

		PACKAGING		
nks	Nonreturnable Totes	Drums	Kegs	Pails

#### THE WHITMORE MANUFACTURING COMPANY

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Performance Under Pressure Since 1893

LIMITED WARRANTY: The Whitmore Manufacturing Company makes the Limited Express Warranty that at the date of delivery, its goods shall be free from defects in Whitmore's materials and workmanship and shall meet the express written statements of quality, if any, made by Whitmore in connection with the sale of the goods. Other than such Limited Express Warranty, there are no express warranties made with respect to the sale of goods and all implied warranties existing under the law are expressly disclaimed and negated, particularly. Whitmore NEGATES AND DISCLAIMS THE IMPLIED WARRANTY OF MERCHANTABILITY AND THE IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE. All other liability, either in contract or tort, including without limitation, strict liability found in Section 402A of the Restatement of Torts or otherwise, is negated and disclaimed. The sole remedy for Whitmore's breach of such Limited Express Warranty shall be a refund of the purchase price of its goods, and Whitmore shall have no responsibility for incidental or consequential damages sustained as a result of the use of the goods, whether sustained to the goods themselves or to other property. Data listed are subject to usual manufacturing variations.

Shuttle Tar