

# DRIVERA SF

ISO VG 150, 220, 320, 460, 680

## Product Description

Premium industrial gear oils produced from high quality hydrocarbon basestocks and complete additive package containing all the necessary ingredients which deliver a high level of micropitting resistance, bearing protection, and compatibility with the elastomers liquid sealant. DRIVERA SF is officially approved by SIEMENS.

## Benefits

- Enhanced wear and corrosion protection to improve gear and bearing life.
- Enhanced critical micropitting resistance resulting in less unexpected outage duration.
- Excellent oxidative and thermal resistance to extend oil drain periods.
- Highly effective antifoam protection by reducing air entrainment to prevent metal surface contacts.

## Applications

- industrial applications, especially spur, helical, bevel, planetary gear boxes, and marine gear units without multi-disk clutches.
- Applicable for gears and bearings in circulating and splash-lubricated systems.
- Especially designed for gear unit that requires SIEMENS FLENDER standard.
- Not recommend for worm gear units.

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## Typical Characteristics

Tests	Methods	Units	Results				
			150	220	320	460	680
Kinematic Viscosity at 40 °C	ASTM D 445	mm <sup>2</sup> /s	148.6	228.4	337.8	459.2	674.6
Kinematic Viscosity at 100 °C	ASTM D 445	mm <sup>2</sup> /s	16.16	22.3	29.94	37.69	50.28
Viscosity Index	ASTM D 2270		114	119	122	125	129
Density at 15 °C	ASTM D 4052	g/cm <sup>3</sup>	0.871	0.873	0.876	0.878	0.881
Flash Point (COC)	ASTM D 92	°C	246	238	233	234	230
Pour Point	ASTM D 5950	°C	-33	-30	-30	-27	-24
FZG Scuffing Load (A/8.3/90)	ASTM D 5182	Stage	>12	>12	>12	>12	>12
Four-Ball Weld Load	ASTM D 2783	kg <sub>f</sub>	250	250	250	250	250
Foaming	Seq. I	ASTM D 892	ml/ml	0/0	0/0	0/0	0/0
	Seq. II	ASTM D 892	ml/ml	0/0	0/0	0/0	0/0
	Seq. III	ASTM D 892	ml/ml	0/0	0/0	0/0	0/0

## Performance Standards

- AGMA 9005-E02 EP
- US STEEL 224
- DIN 51517 Part 3
- ISO 12925-1 CKC/CKD
- SIEMENS MD FLENDER Gear Units (Revision 15), T 7300, Table A-a
- Fives Cincinnati Machine Gear

## Health and Safety

This product shows no significant health or safety hazard when used under the recommended applications and suitable handling.

Avoid the direct contact. Wash immediately after contact. Health and safety information is available on the Safety Data Sheet (SDS) which can be obtained from <http://pttlubricants.pttor.com>



The product can cause some skin irritation and has flash point higher than 93.4°C

Note: Data and information contained in this publication are based on standard test under laboratory conditions and/or performance test. To consider the use of PTT Lubricants' products in particular application, customer is responsible for determining whether product and information are appropriate for customer conditions or should consult with PTT Lubricants' technical service division. The procedure of using any lubricant may differ or change depended on different machines and their manuals. Therefore, we recommend to read, understand and review the latest SDS in order to ensure the use of product is accomplished safety.

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