

# TECHNICAL DATA SHEET

### Syngear SW Range

PAG synthetic industrial gear oils Product code: See table below

#### Product Description:

Syngear SW grades are a range of polyalkylene glycol (PAG) based synthetic lubricants which provide outstanding load carrying properties and excellent thermal stability. They have been specifically designed to provide excellent corrosion protection and demulsibility characteristics.

#### **Benefits:**

- Very high levels of wear protection
- Extended oil drain periods
- Excellent load carrying properties
- Outstanding oxidation stability and resistance to thermal breakdown
- Free from mineral oil, sulphur and chlorine
- Free from metal based additives including lead
- High load carrying properties
- Non-staining towards yellow metals

#### Applications:

The Syngear SW range allow thermally stable operation at temperatures in excess of 200°C. Typical applications include the lubrication of calendars, piston compressors and bevel, spiral bevel, helical, enclosed spur and worm gear units. They remain homogenous from below their pour point to temperatures in excess of 250°C. The anticipated service lifetime of each grade is substantially in excess of 10,000 hours at 100°C. In industrial enclosed gear units the performance allows for extended drain intervals and, in some cases, for operation as a "fill-for-life" lubricant.

#### Product Specification:

DIN	51517 - Part 3 (CLP)
David Brown	Type G

Meets the requirements set down under Defence Standard 05-50.1, No. 29 (ISO 150, 220 & 460).



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#### **Typical Test Data:**

Syngear SW	150	220	320	460	680
Product Code	G135	G050	G067	G048	G175
Kinematic Viscosity (IP71)					
cSt @ 40°C	150	237	325	433	680
cSt @ 100°C	25	31.8	44.8	63.7	122
Viscosity Index (IP226)	195	177	196	220	281
Pour Point (°C) (IP15)	-30	-30	-30	-28	-28
PMCC Flash Point (°C) (IP34)	191	225	225	225	280
Neutralisation Value (mg KOH/g) (IP139)	0.90	1.09	1.12	1.15	1.15
Density @ 20°C (D4052)	0.944	1.006	1.006	1.007	1.070
Total Oxidation Products (%) (IP280)	0.552	0.554	0.523	0.500	0.500
Load Carrying Capacity (IP334. A/8.3/90)					
FZG Failure Load	>13	>13	>13	>13	>13
Timken OK Load (lbs) (ASTM D2782)	27	27	35	35	35
Weld Load (kg) (ASTM D2783)	168	175	170	170	170
Copper Strip Corrosion, 3 hrs @ 100°C (IP154)	1b	1a	1b	1a	1a
Rust Prevention (IP135)					
Procedure A	Pass	Pass	Pass	Pass	Pass
Procedure B	Pass	Pass	Pass	Pass	Pass
Volume of Foam (ml)					
Sequence 1	nil/nil	nil/nil	nil/nil	90/nil	90/nil
Sequence 2	nil/nil	nil/nil	nil/nil	20/nil	20/nil
Sequence 3	nil/nil	nil/nil	nil/nil	nil/nil	nil/nil
Air Release (min. @ 90°C) (ASTM D3427)	19	17	27	25	25
Demulsibility @ 82°C					
Emulsion (ml)	3	3	0	0	0
Free Water (ml)	37	37	40	40	40