



SYNFILM® GT

MULTI-PURPOSE INDUSTRIAL OIL

Synfilm® GT, Royal Purple's most versatile lubricant, is a long life, high film strength, energy efficient, synthetic lubricant that significantly increases bearing life and equipment reliability. In the appropriate viscosity grade, it is recommended for use in gas and steam turbines, air misting systems, centrifugal compressors, pumps, vacuum pumps, blowers, bearings, gears, in certain worm gear application, and more. Possessing incredible high-temperature oxidation resistance and low-temperature fluidity, Synfilm GT should be considered instead of Synfilm when oil reservoir temperatures exceed 175°F, improved low temperature fluidity is desired or when a viscosity grade is not available in Synfilm. The ISO 32, 46, and 68 viscosity grades of Synfilm GT receive special filtering to an ISO cleanliness level of 14/13/11 before the addition of anti-foam additive.

Synthetic base oils provide the foundation that enables Royal Purple to make superior lubricants, but it is Royal Purple's advanced Synerlec® additive technology that gives its lubricants their amazing performance advantages. Synerlec additive technology truly is beyond synthetic. Synerlec® additive technology forms a tough, slippery, synthetic film on all metal surfaces. This proprietary film significantly improves lubrication by drastically increasing the oil film's strength which helps to prevent metal-to-metal contact. With less metal-to-metal contact, friction, heat, and wear are greatly reduced. Synerlec® displaces moisture from metal surfaces and protects all metals against rust and corrosion. It also fortifies the oil against the detrimental effects of heat, which causes oil to oxidize.

PERFORMANCE ADVANTAGES

SUPERIOR FILM STRENGTH – Protects bearings far beyond the ability of other compressor and pump oils, carrying up to 700% greater loads

EXCELLENT DEMULSIBILITY – Rapidly and completely separates from water, which is easily drained from the bottom of the oil reservoir

INCREASED EFFICIENCY – Extremely low coefficient of friction reduces parasitic loss in equipment, saving energy over conventional oils

OUTSTANDING OXIDATION RESISTANCE – Greatly increases the useful life of the lubricant and resists varnish formation

EXCELLENT CORROSION PROTECTION – Forms an ionic bond on metal surfaces, which displaces water with rust inhibiting chemistry

REDUCES BEARING VIBRATIONS – Tough oil film along with an ability to micro-mend bearing surfaces provides superior bearing lubrication

WIDE SEAL COMPATIBILITY RANGE – Compatible with all materials commonly used in oils seals, such as fluoroelastomers, neoprene, Buna N (except high ACN), and silicone. It is not for use with EPDM or EPR elastomers



SYNFILM® GT

MULTI-PURPOSE INDUSTRIAL OIL

TECHNICAL DATA

Property	Test Method	22	32	46	68	100
SAE Grade	SAE J300	SAE 8	SAE 12	SAE 20/SAE 80	SAE 30/SAE 80	SAE 40/SAE 85
ISO Grade	ISO 3448	22	32	46	68	100
Viscosity @ 40°C, cSt	ASTM D445	21.6	32.1	44.4	67.7	102.5
Viscosity @ 100°C, cSt	ASTM D445	4.5	6.0	7.5	10.1	13.5
Viscosity Index	ASTM D2270	123	135	135	134	131
Specific Gravity	ASTM D4052	0.840	0.846	0.850	0.858	0.863
Flash Point, °C (°F)	ASTM D92	240 (464)	235 (455)	249 (480)	252 (485)	246 (475)
Pour Point, °C (°F)	ASTM D97	-57 (-71)	-57 (-71)	-50 (-58)	-43 (-45)	-43 (-45)
Cu Corrosion, 3hr @ 100°C	ASTM D130	1A	1A	1A	1A	1A
Cu Corrosion, 24hr @ 100°C	ASTM D130	1A	1A	1A	1A	1A
Rust Preventing, Fresh Water	ASTM D665A	PASS	PASS	PASS	PASS	PASS
Rust Preventing, Salt Water	ASTM D665B	PASS	PASS	PASS	PASS	PASS
Demulsibility, @130°F	ASTM D1401	39/40/1 (10)	39/38/3 (10)	40/38/2 (10)	40/38/2 (5)	--
Demulsibility, @180°F	ASTM D1401	--	--	--	--	40/39/1 (10)
Foam Test, Seq.II	ASTM D892	0/0/0	0/0/0	0/0/0	0/0/0	0/0/0

Property	Test Method	150	220	320	460	680
SAE Grade	SAE J300	SAE 50/SAE 90	SAE 60/SAE 110	SAE 140	SAE 190	SAE 250
ISO Grade	ISO 3448	150	220	320	460	680
Viscosity @ 40°C, cSt	ASTM D445	145	231	338	470	689
Viscosity @ 100°C, cSt	ASTM D445	17.1	23.2	30.4	38.2	49.4
Viscosity Index	ASTM D2270	128	124	125	125	124
Specific Gravity	ASTM D4052	0.867	0.874	0.878	0.882	0.889
Flash Point, °C (°F)	ASTM D92	241 (465)	229 (445)	218 (425)	235 (455)	247 (476)
Pour Point, °C (°F)	ASTM D97	-36 (-33)	-50 (-58)	-43 (-45)	-43 (-45)	-33 (-27)
Cu Corrosion, 3hr @ 100°C	ASTM D130	1A	1A	1A	1A	1A
Cu Corrosion, 24hr @ 100°C	ASTM D130	1A	1A	1A	1A	1A
Rust Preventing, Fresh Water	ASTM D665A	PASS	PASS	PASS	PASS	PASS
Rust Preventing, Salt Water	ASTM D665B	PASS	PASS	PASS	PASS	PASS
Demulsibility, @130°F	ASTM D1401	--	--	--	--	--
Demulsibility, @180°F	ASTM D1401	38/40/2 (10)	41/38/1 (10)	43/37/0 (10)	43/37/0 (5)	43/37/0 (5)
Foam Test, Seq.II	ASTM D892	0/0/0	0/0/0	0/0/0	0/0/0	0/0/0

11/11/2021