

SYF-990/DRAWPLUS FG

LUBRICANT FOR PUNCHES & DIES

Product Description

SYF-990/DRAWPLUS FG oils are lubricating oils based on polyalphaolefin. They are registered as NSF H1 and comply with FDA 21 CFR § 178.3570. SYF-990/DRAWPLUS FG oils meet the CLP requirements according to DIN 51 517 – 03. These lubricating oils exhibit a good scuffing load capacity and good anti wear protection for rolling bearings according to FAG FE 8. The corrosion protection properties of these oils are very good as is their ageing and oxidation stability. They also have a high resistance to shear and do not foam.

Application

SYF-990/DRAWPLUS FG oils are used for the lubrication of friction points in food-processing and pharmaceutical machinery. They are especially suitable for the lubrication of spur, bevel and worm gears, bearings, spindles and joints, as well as of lift, drive and conveyor chains at low temperatures.

Application Notes

When used in gears, SYF-990/DRAWPLUS FG oils may be applied by immersion, immersion circulation or injection. Drip-feed lubrication and application by brush or oil can is also possible. SYF-990/DRAWPLUS FG oils are miscible with mineral oils and polyalphaolefin oils. However, we recommend cleaning the oil circulation system or flushing it with the new oil prior to using SYF-990/DRAWPLUS FG for the first time. Especially with a view to the H1 requirements in the food processing industry, any mixing of SYF-990/DRAWPLUS FG oils with non-food-grade lubricants should be avoided.

For permanent temperatures at the seal edge up to 80 °C, NBR seals (acrylonitrile-butadiene rubber) may be used. For higher temperatures, it is safer to use FKM seals instead. It should be noted that elastomers from one or several manufacturers can behave differently. This lubricant is registered as H1, which means that it has been designed for incidental, technically unavoidable food contact. Experience shows that it can be used for equivalent applications in the cosmetic and pharmaceutical industry under the conditions described in the product information leaflet. Specific test results as e.g. biocompatibility, which could be an additional requirement for applications in the pharmaceutical industry, are not available for this product. Therefore, before using the lubricant adequate risk analyses have to be performed and, if necessary, suitable measures be taken by the manufacturer and user of installations in order to exclude the risk of health hazards and personal injuries.

Benefits

- Requirements set forth in DIN 51 517 are met by viscosity variants ISO VG 32 to 680. This oil can be used in gearboxes requiring these standards without prior consent by the gearbox OEM if the application notes are observed.
- Registered as NSF H1 for use in the food-processing and pharmaceutical industries, comply with FDA 21 CFR Sec 178.3570.
- Having a synthetic polyalphaolefin base oil, SYF 990/DRAW PLUS FG has a significantly prolonged service life compared to mineral and white oil due to the base oil's excellent ageing resistance and oxidation stability. Service intervals can be extended and, in some cases, even lifetime lubrication can be achieved.
- Due to the wide service temperature range, it is often sufficient to use just one viscosity grade for both high and low temperatures.
- The good viscosity-temperature behavior supports the formation of a sufficient lubricating film, also under elevated or high temperatures.

- Due to the oils' good wear protection for both the gear teeth and the rolling bearings, the lubricated components attain their calculated lifetime.

Typical Properties-

SYF-990/DRAWPLUS FG	32	46	68	100	150	220	320	460	680	1500
Density, DIN 51757, at 15 °C, [kg/m ³], approx.	0.840	0.840	0.840	0.850	0.850	0.850	0.850	0.860	0.860	0.860
Kinematic viscosity, DIN 51562 pt.01 at @40°C, [mm ² /s], approx. @ 100 °C, [mm ² /s], approx	32 6	46 8	68 11	100 14	150 19	220 26	320 35	460 47	680 65	1500 125
Viscosity index, DIN ISO 2909, approx.	135	135	140	140	140	140	150	150	150	180
Flash point, COC, DIN ISO 2592, [°C]	225	200	200	200	200	200	200	200	200	200
Pour point, DIN ISO 3016, [°C], approx.	-39	-39	-36	-36	-36	-30	-30	-30	-27	-25
Service temperature range*, [°C]	-35 to 120	-35 to 120	-35 to 120	-35 to 120	-35 to 120	-30 to 120	-30 to 120	-30 to 120	-25 to 120	-25 to 120
FZG fretting test, A/8.3/90, DIN ISO 14635- 01, scuffing load stage	10	10	12	12	12	12	12	12	12	12
Foaming characteristics, ASTM D 892, sequence I, II and III [ml]	100/10	100/10	100/10	100/10	100/10	100/10	100/10	100/10	100/10	100/10
Copper corrosion test, 24 h, DIN EN 2160, degree of corrosion	1-100	1-100	1-100	1-100	1-100	1-100	1-100	1-100	1-100	1-100
Rust-preventing properties on steel, DIN ISO 7120	0 – A	0 – A	0 – A	0 – A	0 – A	0 – A	0 – A	0 – A	0 – A	0 – A
Ageing characteristics, ASTM D 2893, increase in viscosity [%]	6	6	6	6	6	6	6	6	6	6
Rolling bearing tester FE 8, D 7, 5/80-80, DIN 51 819-3, wear of rolling elements, [mg], wear of cage, [mg]	30 200	30 200	30 200	30 200	30 200	30 200	30 200	30 200	30 200	30 200

Available Packs: 1 , 5 , 20, 50, 210 ltr

Shelf Life: 36 Months from manufacturing month.

* All related specifications are meets or exceeds.

Due to continual product research and development, the information contained herein is subject to change without notification. Typical Properties may vary slightly. The Material Safety Data Sheet (MSDS) are available upon request through our sales office.