Product Information

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RENOLIN B HVI PLUS

High-quality EP/AW lubricating and hydraulic oils with a high viscosity index, based on hydrogenated base oils

Description

The RENOLIN B HVI PLUS products are based on selected, hydrogenated Group II base oils of the latest generation. Balanced additives and additive systems improve ageing and oxidation resistance. They also guarantee excellent corrosion protection for steel and iron materials. Synergistic copper inhibitors protect copper and yellow metal alloys against corrosion. Selected zinc-containing AW (Anti-Wear) and highly resistant EP (Extreme Pressure) additives reliably protect hydraulic pumps, motors, hydraulic components, and machine elements against wear. Excellent wear protection is guaranteed even under high loads, high and low temperatures, and harsh environmental conditions. RENOLIN B HVI PLUS hydraulic oils have a high viscosity index (low influence of temperature on viscosity). The additive systems used in combination with selected base oils ensure excellent shear stability. Due to the shear-stable, good viscosity-temperature behaviour (high VI) of the RENOLIN B HVI PLUS oils, it is ensured that on the one hand a fast and safe start-up is possible at low temperatures, and on the other hand sufficient viscosity is available at high temperatures. RENOLIN B HVI PLUS Oils are hydraulic and lubricating oils (machine oils with multigrade characteristics) with a high viscosity index. They contain additives to improve ageing behaviour and corrosion protection.

Advantages

- High-quality base oils of the latest generation
- Very good wear protection
- Excellent viscosity-temperature behaviour (high VI)
- High shear stable viscosity index (VI)
- Wide operating temperature range
- Very good air release
- Long service life
- Low foaming tendency
- Very good corrosion protection

FUCHS LUBRICANTS (AUSTRALASIA) PTY LTD
49 McIntyre Road
Sunshine VIC 3120

Tel : 1800 1800 13 (AUS)
www.fuchs.com
orders.au@fuchs.com

Tel : 0800 382 476 (NZ)

ISO 9001, IATF 16949, ISO 14001, ISO 45001

Description (Continuation)

The requirements for zinc-containing, demulsifying hydraulic and circulating oils in accordance with DIN 51524-3: HVLP are met and far exceeded. By using new high-quality base oils, the service life can be significantly extended compared to conventional hydraulic oils in Group I (standard mineral oil). The products have a very low pour point and very low deposit tendencies (low varnish fluid). The RENOLIN B HVI PLUS products have an excellent air release, low air accumulation and fast dynamic air separation.

Application

Universally applicable multigrade hydraulic oil, demulsifying, for circulation and bearing lubrication). RENOLIN B HVI PLUS oils are suitable for all applications in mobile and stationary hydraulic systems for which the use of a demulsifying hydraulic oil type HVLP/HV is prescribed. Synergistic additives guarantee a long service life, maximum hydraulic performance and good power transmission. For use at high pressures and high temperatures. Special hydrogenated base oils in combination with selected additive systems ensure long, safe and reliable operation of the system, components and machines. A long service life and doubling of the service intervals are possible. RENOLIN B HVI PLUS has excellent thermal, oxidative and hydrolytic stability. The formation of hydrolysis products in the event of water contamination is safely avoided. RENOLIN B HVI PLUS has excellent wear protection properties even under high loads and at high temperatures. RENOLIN B HVI PLUS guarantees fast air separation, even in systems with a high circulation rate.

Specifications

- The product fulfils or exceeds the requirements according to:
- DIN 51524-3: HVLP
- ISO 6743-4: HV
- ISO 11158
- Vickers vane pump
- US Steel 127, 136
- Cincinnati Milacron P68, P69, P70

Approvals

- RENOLIN B 32 HVI PLUS, RENOLIN B 46 HVI PLUS and RENOLIN B 68 HVI PLUS are approved by:
- Bosch Rexroth RD 90235 / RDE 90245
- DENISON HF-0 / HF-1 / HF-2

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TYPICAL CHARACTERISTICS
RENOLIN B HVI PLUS

Properties	Method	RENOLIN B 15 HVI Plus	RENOLIN B 22 HVI Plus	RENOLIN B 32 HVI Plus
ISO VG	DIN 51519	15	22	32
Viscosity index	DIN ISO 2909	148	152	151
Acid number (neutralisation number)	DIN ISO 6618	0.5 mgKOH/g	0.5 mgKOH/g	0.5 mgKOH/g
Kinematic viscosity at -20 °C	DIN EN ISO 3104	373 mm²/s	739 mm²/s	1,485 mm²/s
Kinematic viscosity at 0 °C	DIN EN ISO 3104	90 mm²/s	154 mm²/s	257 mm²/s
Kinematic viscosity at 40 °C	DIN EN ISO 3104	15 mm²/s	22 mm²/s	32 mm²/s
Kinematic viscosity at 100 °C	DIN EN ISO 3104	3.8 mm²/s	4.9 mm²/s	6.3 mm²/s
Density at 15 °C	DIN 51757	844 kg/m³	845 kg/m³	846 kg/m³
Flash point according to Cleveland (COC)	DIN EN ISO 2592	190 °C	210 °C	230 °C
Pour point	DIN EN ISO 3016	-57 °C	-48 °C	-42 °C
Scuffing capacity FZG A/8.3/90	DIN ISO 14635-1	-	-	11
Load capacity according to Brugger	DIN 51347-2	30 N/mm²	30 N/mm²	30 N/mm²
TOST Lifetime	ASTM D943	> 5.000 h	> 5.000 h	> 5.000 h
VKA shear loss - relative viscosity drop KV40 | KV100	DIN 51350-6	< 5 %	< 10 %	< 10 %

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Properties	Method	RENOLIN B 46 HVI PLUS	RENOLIN B 68 HVI PLUS	RENOLIN B 100 HVI Plus
ISO VG	DIN 51519	46	66.5 ***to be updated***	102
Viscosity index	DIN ISO 2909	152	153	140
Acid number (neutralisation number)	DIN ISO 6618	0.5 mgKOH/g	0.5 mgKOH/g	0.5 mgKOH/g
Kinematic viscosity at -20 °C	DIN EN ISO 3104	2,591 mm²/s	4,205 mm²/s	11,700 mm²/s
Kinematic viscosity at 0 °C	DIN EN ISO 3104	442 mm²/s	670 mm²/s	1,381 mm²/s
Kinematic viscosity at 40 °C	DIN EN ISO 3104	46 mm²/s	66.5 mm²/s	102 mm²/s
Kinematic viscosity at 100 °C	DIN EN ISO 3104	8.2 mm²/s	10.8 mm²/s	14 mm²/s
Density at 15 °C	DIN 51757	856 kg/m³	854 kg/m³	867 kg/m³
Flash point according to Cleveland (COC)	DIN EN ISO 2592	240 °C	260 °C	260 °C
Pour point	DIN EN ISO 3016	-42 °C	-33 °C	-36 °C
Scuffing capacity FZG A/8.3/90	DIN ISO 14635-1	11	11	11
Load capacity according to Brugger	DIN 51347-2	30 N/mm²	30 N/mm²	30 N/mm²
TOST Lifetime	ASTM D943	> 5.000 h	> 5.000 h	> 5.000 h
VKA shear loss - relative viscosity drop KV40 | KV100	DIN 51350-6	< 10 %	< 10 %	< 15 %

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Properties	Method	RENOLIN B 150 HVI Plus
ISO VG	DIN 51519	151
Viscosity index	DIN ISO 2909	132
Acid number (neutralisation number)	DIN ISO 6618	0.5 mgKOH/g
Kinematic viscosity at -20 °C	DIN EN ISO 3104	25,004 mm²/s
Kinematic viscosity at 0 °C	DIN EN ISO 3104	2,387 mm²/s
Kinematic viscosity at 40 °C	DIN EN ISO 3104	151 mm²/s
Kinematic viscosity at 100 °C	DIN EN ISO 3104	18 mm²/s
Density at 15 °C	DIN 51757	876 kg/m³
Flash point according to Cleveland (COC)	DIN EN ISO 2592	260 °C
Pour point	DIN EN ISO 3016	-33 °C
Scuffing capacity FZG A/8.3/90	DIN ISO 14635-1	11
Load capacity according to Brugger	DIN 51347-2	30 N/mm²
TOST Lifetime	ASTM D943	> 5.000 h
VKA shear loss - relative viscosity drop KV40 | KV100	DIN 51350-6	< 15 %

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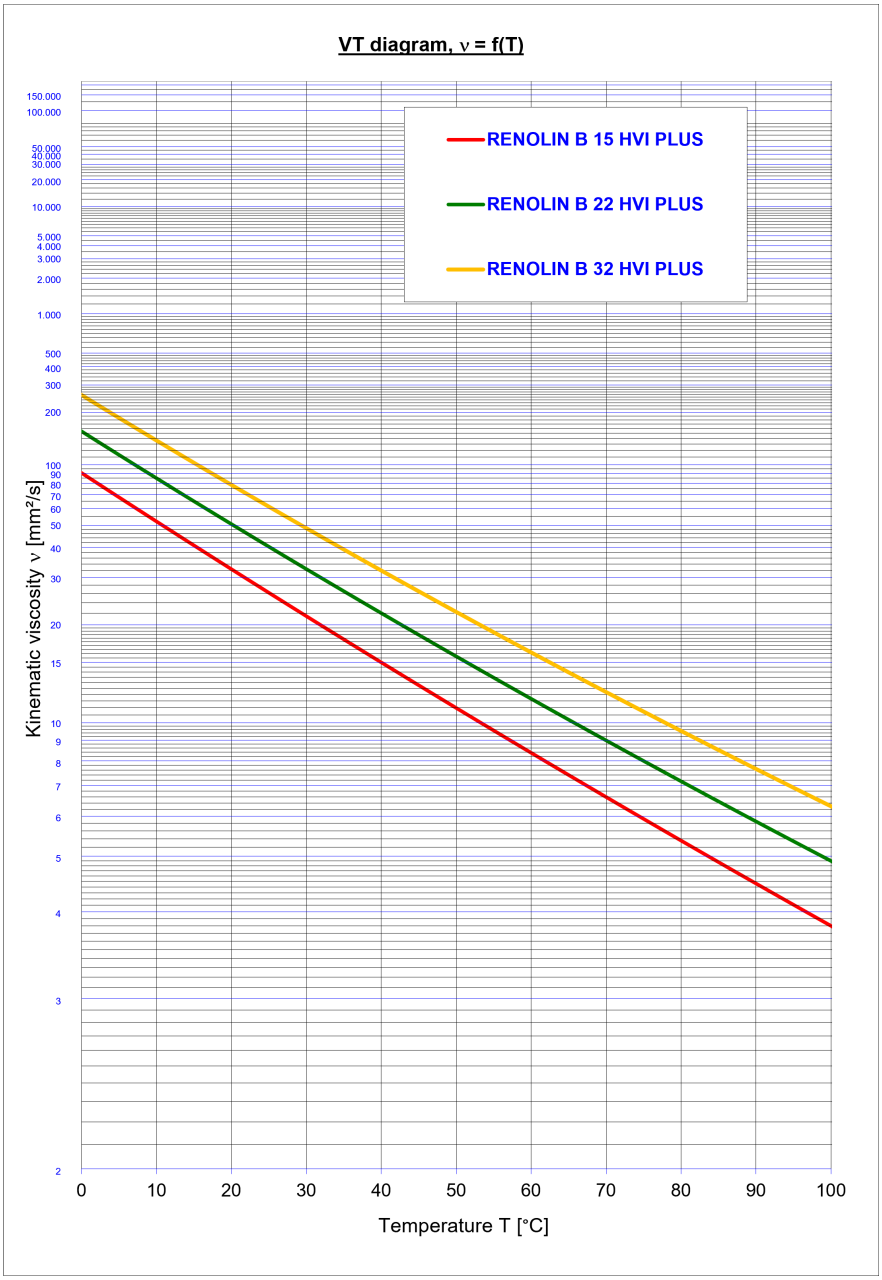
VT Diagram



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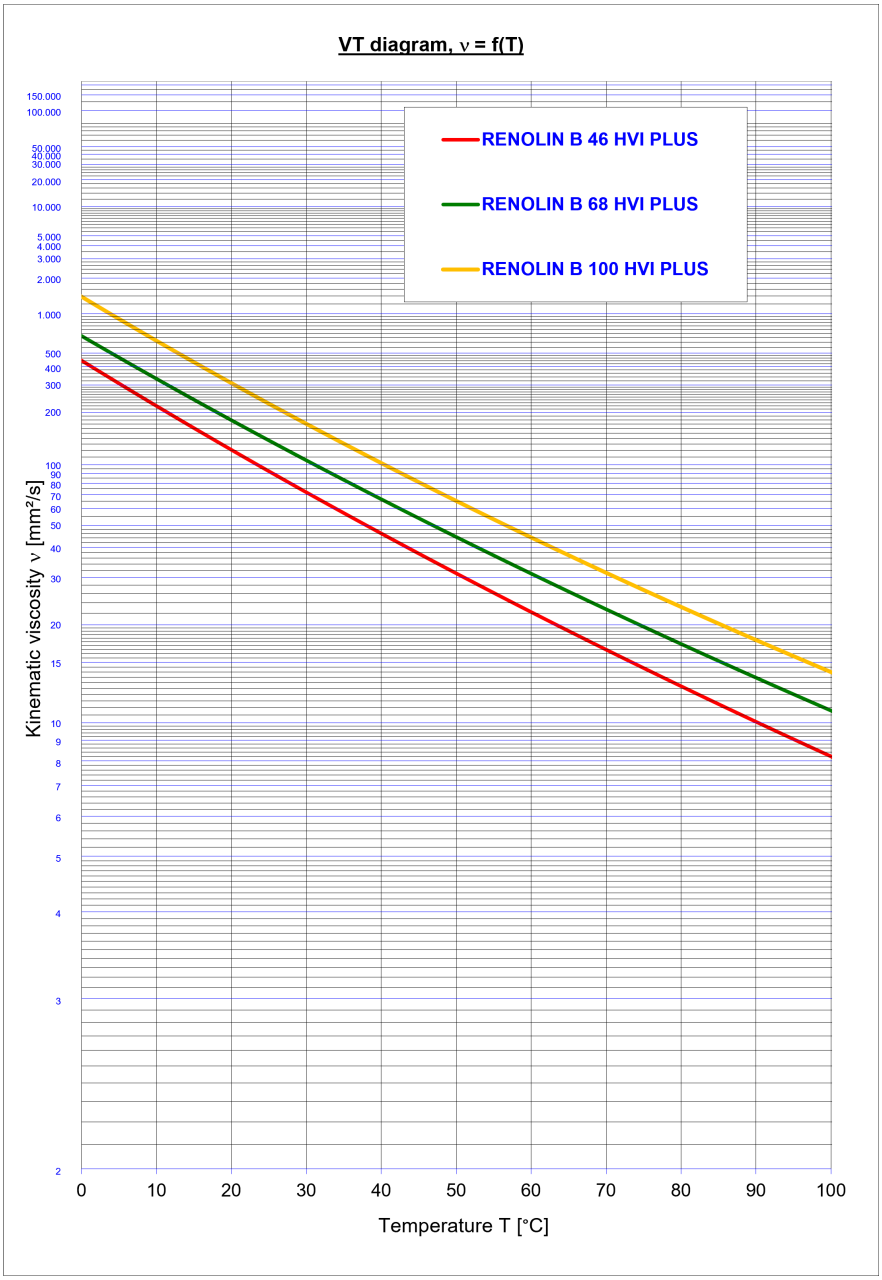

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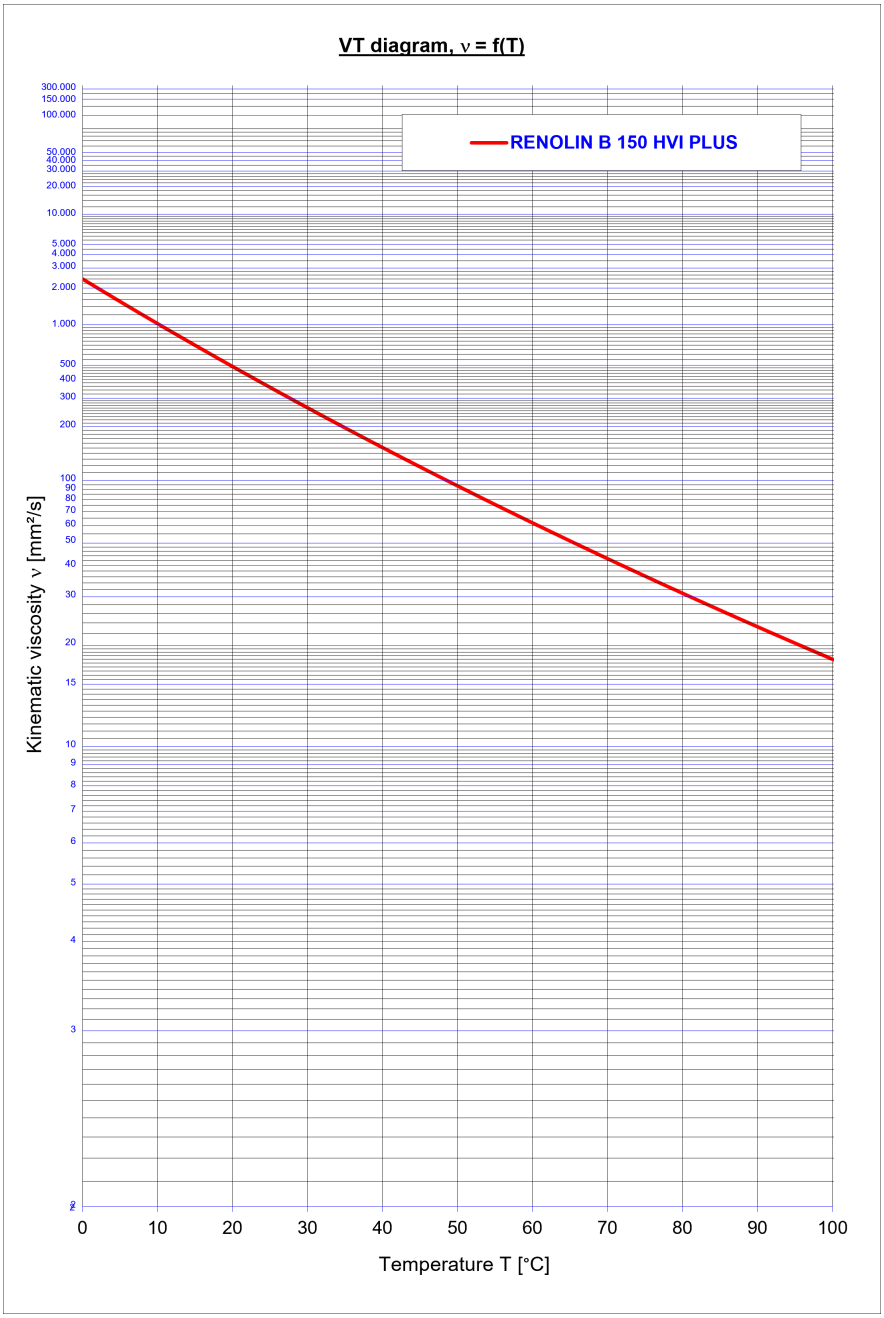

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