



SYNDURO™ SHB SYNTHETIC MULTIFUNCTIONAL LUBRICANT

Introduction

The SYNDURO SHB family of synthetic multifunctional fluids is specially formulated for the lubrication of gears, bearings and air compressors operating under demanding conditions. Polyalphaolefin (PAO) base oils, chosen for their excellent low temperature performance, are blended with selected additives to produce these superior lubricants. SYNDURO SHB fluids provide excellent component protection for equipment operating at high speed over a wide temperature range during extended service intervals.

In new equipment, SYNDURO SHB fluids meet or exceed OEM requirements where synthetic lubricants are recommended. In older equipment, SYNDURO SHB provides superior anti-wear and anti-corrosion protection for high speed gears and bearings operating at maximum capacity.

Features and Benefits

- **Highest oxidation stability in its class**
 - Extended service intervals when compared to conventional mineral oils
 - Excellent product integrity in equipment with small lubricant reservoirs
 - Low carbon deposit forming tendency
- **Excellent thermal stability**
 - Superior long term protection over wide temperature ranges
 - Reduced carbon deposits on critical components
 - Extended equipment life that can lead to reduced maintenance costs
- **Superior wear protection**
 - Extended equipment life
 - Reduced possibility of unscheduled shutdowns
- **Excellent resistance to rust and corrosion**
 - Provides rust protection on component surfaces in the presence of moisture
 - Protects copper and bronze surfaces from chemical attack

- **High viscosity index**
 - Reliable equipment start-up at low ambient temperatures
 - Improved gear and bearing protection at high operating temperatures
- **Suitable for older equipment**
 - Outstanding anti-wear performance
 - Extended equipment life when operating at capacity
 - Reduced concern of lubricant failure over conventional lubricants
- **Broad range of application**
 - Allows consolidation of lubricants
 - Reduced plant-wide lubricant inventory
 - Reduced chances of misapplication

Applications

SYNDURO SHB fluids are suitable for a wide range of gear, bearing and compressor applications in the forestry, mining, marine and heavy duty industries where low seasonal start up temperatures and/or high operating temperatures prevail.

Upgraded facilities where modern and older equipment co-exists would greatly benefit from the plant-wide use of SYNDURO SHB fluids. They extend the service interval of equipment presently using conventional lubricants. Use of SYNDURO SHB fluids throughout the plant can reduce lubricant inventory and reduce routine maintenance frequency.

SYNDURO SHB fluids are suitable for many gear oil applications such as worm gears and helical gear boxes and have an excellent FZG stage pass rating of 12. For those applications that are subjected to heavy loads or shock loading and require an AGMA EP type of fluid, Petro-Canada ENDURATEX™ Synthetic EP is recommended.

SYNDURO SHB 46 meets Voith Doc. 3625-008377 and is therefore suitable for lubrication of the Vorecon variable speed planetary gear type RWE11F6.

What is the HT difference?

Petro-Canada starts with the patented HT purity process to produce water-white, 99.9% pure base oils. The result is a range of lubricants, specialty fluids and greases that deliver maximum performance for our customers.



Typical Performance Data

PROPERTY	TEST METHOD	SYNDURO SHB					
		32	46	68	150	220	460
Density, kg/l @ 15°C, Lb/gal @ 60°F	D4052	0.839	0.842	0.845	0.851	0.853	0.857
Colour	D1500	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Flash Point, C O C, °C / °F	D92	237 / 459	254 / 488	235 / 455	237 / 459	243 / 469	266 / 511
Fire Point, C O C, °C / °F	D92	273 / 524	282 / 540	273 / 523	267 / 513	269 / 516	296 / 565
Pour Point, °C / °F	D5950	<-60 / <-76	<-60 / <-76	-54 / -65	-45 / -49	-42 / -44	-39 / -38
Viscosity, cSt @ 40°C	D445	33	47	68	148	219	452
cSt @ 100°C		6.2	8.3	11.1	20.3	27.4	46.9
SUS @ 100°F		177	240	347	760	1130	2350
SUS @ 210°F		47.1	53.6	63.7	101	133	225
Viscosity Index	D2270	142	151	155	159	160	162
Copper Corrosion, 3h @ 100°C	D130	1b	1b	1b	1b	1b	1b
Oxidation Stability, 24h, 200°C, (TAN)	IP48/97 (mod)	0.4	0.4	0.5	0.5	0.5	0.7
FZG Failure Load Stage	DIN 51534	> 12	> 12	> 12	> 12	> 12	> 12
Timken OK, kg / lb	D2782	14 / 30.9	14 / 30.9	14 / 30.9	14 / 30.9	14 / 30.9	14 / 30.9
Four-ball EP Weld, kg / lb	D2783	160 / 353	160 / 353	160 / 353	160 / 353	160 / 353	160 / 353
Four-ball Scar Diameter, mm 1200rpm, 1h @ 40 kg, 75°C	D4172	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

The values quoted above are typical of normal production. They do not constitute a specification.

Health and Safety

When used as directed, Petro-Canada SYNDURO SHB has no adverse effects on health. Beyond normal hygiene, no special precautions are required. To obtain Material Health and Safety Data Sheets, contact one of Petro-Canada's TechData Info Lines.

TechData Info Lines

If you would like to know more about Petro-Canada SYNDURO SHB, or any other product in our complete line of quality lubricants, please contact us at:

Lubricants Head Office
Petro-Canada Lubricants Inc.
2310 Lakeshore Road West
Mississauga, Ontario
Canada L5J 1K2



Canada - West Phone 1-800-661-1199
- East (English) Phone 1-800-268-5850
(French) Phone 1-800-576-1686
Other Areas Phone (416) 730-2408
E-mail lubecsr@suncor.com
Website lubricants.petro-canada.ca

Petro-Canada Europe Lubricants Limited
Wellington House, Starley Way
Birmingham International Park
Solihull, B37 7HB, United Kingdom

Telephone +44 (0) 121 781 7264
Fax +44 (0) 121 781 7401
UK Website www.petro-canada.co.uk
German Website www.petro-canada.de

Petro-Canada America Lubricants
980 North Michigan Avenue
Suite 1400, #1431
Chicago, Illinois
USA 60611

Phone 1-888-284-4572
Fax 1-708-246-8994
E-mail email@petro-canadaamerica.com

Petro-Canada Asia Pacific Holding Company Ltd.
Jia Shi Lubricants Trading (Shanghai) Co. Ltd.
1908 World Trade Tower

500 Guangdong Road, Huangpu District
Shanghai, China 200001
Phone +86-21-6362-0066
Fax +86-21-6362-0536
E-mail asiapacific@suncor.com
Website www.petrocanada.cn

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Beyond today's standards.

