



A HOLLYFRONTIER BUSINESS

# TECH DATA 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

Petro-Canada Lubricants starts with the 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.



## 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. Lubricant service intervals can be extended with the use of SYNDURO SHB versus 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 Lubricants' 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.

## TYPICAL PERFORMANCE DATA

Property	Test Method	SYNDURO SHB						
		32	46	68	100	150	220	460
Density, kg/l @ 15°C	D4052	0.839	0.842	0.845	0.849	0.851	0.853	0.857
Colour	D1500	<0.5	<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	231 / 448	237 / 459	243 / 469	266 / 511
Fire Point, C O C, °C / °F	D92	273 / 524	282 / 540	273 / 523	271/520	267 / 513	269 / 516	296 / 565
Pour Point, °C / °F	D5950	<-60 / <-76	<-60 / <-76	-54 / -65	-54 / -65	-45 / -49	-42 / -44	-39 / -38
Viscosity, cSt @ 40°C cSt @ 100°C SUS @ 100°F SUS @ 210°F	D445	33	47	68	101.3	148	219	452
		6.2	8.3	11.1	15.1	20.3	27.4	46.9
		177	240	347	518	760	1130	2350
		47.1	53.6	63.7	79.8	101	133	22
Viscosity Index	D2270	142	151	155	157	159	160	162
Copper Corrosion, 3h @ 100°C	D130	1b	1b	1b	1b	1b	1b	1b
Oxidation Stability, 24h, 200°C, (AN)	IP48/97 (mod)	0.4	0.4	0.5	0.5	0.5	0.5	0.7
FZG Failure Load Stage	DIN 51534	> 12	> 12	> 12	> 12	> 12	> 12	> 12
Timken OK, kg / lb	D2782	14 / 31	14 / 31	14 / 31	14 / 31	14 / 31	14 / 31	14 / 31
Four-ball EP Weld, kg / lb	D2783	160 / 353	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	<0.5

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

Learn more about us: [lubricants.petro-canada.com](http://lubricants.petro-canada.com)

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Committed to the disciplined operation of our business.



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