



## SYNDURO SHB\* SYNTHETIC GEAR AND BEARING LUBRICANT

### Introduction

The SYNDURO SHB family of synthetic multifunctional fluids is specially formulated for the lubrication of gears and bearings 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 up to ten times when compared to conventional mineral oils
  - Reduced lubrication costs
  - 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, even compared to many other PAO synthetics
  - Extended equipment life and reduced maintenance costs
- **Superior wear protection**
  - Extended equipment life
  - Reduced maintenance costs
  - 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. It extends 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 is suitable for many gear oil applications such as worm gears and helical gear boxes and has 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 Ultima Synthetic EP is recommended.

#### 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	68	150	220	460
AGMA Designation	AGMA	0S	2S	4S	5S	7S
Density, kg/l @ 15°C, Lb/gal @ 60°F	D4052	0.839	0.845	0.851	0.852	0.857
Colour	D1500	<0.5	<0.5	<0.5	<0.5	<0.5
Flash Point, C O C, °C / °F	D92	237 / 459	249 / 480	258 / 496	251 / 484	266 / 511
Fire Point, C O C, °C / °F	D92	273 / 524	273 / 523	279 / 534	277 / 531	296 / 565
Pour Point, °C / °F	D97	<-60 / -76	-57 / -71	-45 / -49	-42 / -44	-39 / -38
Viscosity, cSt @ 40°C	D445	32.9	69	145	219	452
cSt @ 100°C		6.24	11.1	19.9	27.4	46.9
SUS @ 100°F		176.6	352	744	1130	2350
SUS @ 210°F		47.1	63.7	99.7	133	225
Viscosity Index	D2270	142	152	159	160	162
Copper Corrosion, 3h @ 100°F	D130	1b	1a	1a	1a	1a
Oxidation Stability, 24h, 200°C, (TAN)	D94	0.4	0.7	0.7	0.7	0.7
FZG Gear Test , Stages Passed	DIN 51534	12	12	12	12	12
Timken OK, kg / lb	D2782	14 / 31	14 / 30.9	14 / 30.9	14 / 30.9	14 / 30.9
Four-ball EP Weld, kg / lb	D2783	160 / 352	160 / 353	160 / 353	160 / 353	160 / 353
Four-ball Scar Diameter, mm 1200rpm, 1h @ 40 kg, 75°C	D4172	<0.5	0.35	0.35	0.35	0.35

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:

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