

## **HY-PRO**

### **100% synthetic lubricant for hydraulic systems**

#### **Description**

PROLAB's HY-PRO is a lubricant for hydraulic systems whose unique 100% synthetic with PROLAB's exclusive antifriction formula, provides it with exceptional properties which outclass all other regular oils on the market, whether mineral or synthetic base.

#### **Characteristics and Benefits**

PROLAB's HY-PRO synthetic lubricant is the result of the most advanced research on the lubrication of hydraulic systems to date. Its formula includes top quality synthetic oils and additives derived from the most recent technological developments, including PROLAB's unique ANTIFRICTION TREATMENT.

Tested in state-of-the-art laboratories and in the most demanding operating conditions, HY-PRO has shown that:

- The antifriction treatment which covers the metal parts provides pump gears with superior protection from wear caused by friction thus lowering operating temperatures.
- The antifriction treatment guarantees power transfer integrity, smoother operating mode, and greater reliability in the most extreme working conditions.
- The inclusion of high-quality additives allows HY-PRO to offer better resistance to oxidation and mechanical degradation while showing extraordinary stability in the presence of contaminants and excellent anti-corrosion properties.
- HY-PRO's very low pour point and high viscosity index (according to the selected grade) make it a truly reliable lubricant for low temperature start-ups and very stable in high temperatures.

HY-PRO is safe to use, with no occupational health hazards, is not subject to WHMIS regulations, and is available in four ISO grades: 32, 46, 68 and 100.

#### **Types of Application**

PROLAB's HY-PRO is essential in all hydraulic systems that operate under very demanding or extreme conditions.

#### **Compatibilities**

HY-PRO is compatible with viton, Buna N and urethane seals.

## Directions for Use

Follow the manufacturer's instructions for the lubrication of the specific piece of equipment.

## Notes

For better results, it is highly recommended to use PROLAB's DE-25 Decontaminant prior to using a new lubricant.

## Warning

HY-PRO is not compatible with silicone seals.

## Available Sizes

4 L, 20 L, 55 L, 205 L

## Product Code

# 555: HY-PRO # 32

# 556: HY-PRO # 46

# 559: HY-PRO # 68

# 507: HY-PRO # 68 Food Grade

# 527: HY-PRO # 100

Characteristics	ASTM Test	Typical Values HY-PRO-32	Typical Values HY-PRO-46	Typical Values HY-PRO-68
Flash Point	D92	226°C	280°C	246°C
Fire Point	D92	266°C	248°C	264°C
Pour Point	D97	<-49°C	<-45°C	<-40°C
Specific Gravity at 15°C	D4052	0,8387 g/cm <sup>3</sup>	0,9141 g/cm <sup>3</sup>	0,85 g/cm <sup>3</sup>
Viscosities	D445			
@ -30°C		3700 cSt	n/a n/a	n/a n/a
@ -40°C		20 200 cSt	n/a	n/a
@ 0°C		n/a 30,45 cSt	43,2 cSt	68 cSt

@ 40°C		6,41 cSt	8,6 cSt	10 cSt
@ 100°C				
Viscosity Index	D2270	170	182	157
Hydrolytic Stability				
- Acidity of Water	D2619	1,2 mg KOH	2,3 mg KOH	2,2 mg KOH
- Weight Loss		0,08 mg/cm <sup>2</sup>	0,01 mg/cm <sup>2</sup>	0,01 mg/cm <sup>2</sup>
Corrosion - Copper Strip	D130	1b	1b	1b
Foaming Stability				
- Sequence #1	D892	0/10 ml	0/0 ml	0/0 ml
- Sequence #2		20/0 ml	30/0 ml	40/0 ml
- Sequence #3		0/0 ml	0/0 ml	0/0 ml
Demulsibility				
- Water in Oil	D2711A	0,1%	0,4%	0,4%
- Total Free Water		44 ml	42,8 ml	42,4 ml
- Emulsion		Traces	Traces	0,1 ml
Oxidation Stability (sludge)	D4310	36 mg	13 mg	13 mg
Oxidation Stability	D943	7000 hrs.	3500 hrs	2900 hrs

Rust Preventive				
- Distilled Water	D665	Pass	Pass	Pass
- Sea Water		Pass	Pass	Pass
4-Ball Wear	D4172	n/a	0,26 mm	0,26 mm
4-Ball Wear EP				
- Load Wear Index	D2783	n.d.	27	23
- Weld Load		n.d.	160 kg	160 kg

Characteristics	ASTM Test	Typical Values HY-PRO-68-FG	Typical Values HY-PRO-100
Flash Point	D92	245°C	234°C
Fire Point	D92	n/a	260°C
Pour Point	D97	<-45°C	-34°C
Specific Gravity at 15°C	D4052	0,8675 g/cm <sup>3</sup>	0,8741 g/cm <sup>3</sup>
Viscosities	D445		
@ -30°C		n/a n/a n/a	n/a n/a n/a

@ -40°C		66,07 cSt	102,89 cSt
@ 0°C		10,9 cSt	14,41 cSt
@ 40°C			
@ 100°C			
Viscosity Index	D2270	156	144
Hydrolytic Stability			
- Acidity of Water	D2619	8,88 mg KOH	0,6 mg KOH
- Weight Loss		-0,025 mg/cm <sup>2</sup>	0 mg/cm <sup>2</sup>
Corrosion - Copper Strip	D130	1a	1b
Foaming Stability			
- Sequence #1	D892	10/0	10/0
- Sequence #2		30/0	20/0
- Sequence #3		10/0	0/0
Demulsibility			
- Water in Oil	D2711B	0.2%	0,4%
- Total Free Water		85 ml	42 ml
- Emulsion		0 ml	0,3 ml

Oxidation Stability (sludge)	D4310	n/a	36 mg
Oxidation Stability	D943	>10000 hrs	2040 hrs.
Rust Preventive			
- Distilled Water	D665	Pass	Pass
- Sea Water		Pass	Pass
4-Ball Wear	D4172	0,38 mm	n/a
4-Ball Wear EP			
- Load Wear Index	D2783	23	n/a
- Weld Load		200 kg	n/a

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