



## Bartran

### Premium Hydraulic Oil

#### Description; Description

A range of premium quality mineral oil-based hydraulic fluids containing zinc-free anti-wear additives.

Bartran oils display high performance characteristics with outstanding ultra fine filterability.

#### Applications; Applications

Bartran oils are formulated for severely stressed hydraulic systems in which high levels of anti-wear performance and/or ultra fine filtration are required. Examples include modern electro-hydraulic control valves incorporating 0.5 (nominal) micron filters. The Bartran range is fully compatible with the elastomer materials commonly used for static and dynamic seals, such as :

- . Nitril butyl (PERBUNAN\* or BUNA N\*)
- . Fluorinated (VITON\*/TEFLON\*)
- . Perfluorinated (KABREZ\*)
- . Polyurethane (ADIPRENE\*)
- . Polyester (HYTREL\*) \* trade marks

Bartran oils are suitable for a wide range of other applications requiring high levels of anti-wear and anti-oxidation performance e.g. bearings and gears of high speed air/gas blowers.

BP's Bartran oils meet specification requirements of all the major manufacturers of hydraulic pumps and motors, and the following approvals/recommendations apply :

- DIN 51 524, Part 2
- ISO 6743/4 (NFE 48-603,NFE 60-203), Category HM
- Denison HF-0, HF-2
- Vickers industrial machinery, exceeds I-286-S specification (pump 35V.Q.25)
- Rexnord-Racine vane pumps
- Mannesmann Rexroth Hydromatik piston pumps
- Sigma-Rexroth gear pumps
- Cincinnati Milacron - p. 68-69-70
- US Steel 136

Follow the recommendations of equipment manufacturers regarding filtration and oil change intervals.

#### Main Benefits; Main Benefits

- Highest degree of equipment protection
- Extended oil life and improved tolerance of severe service conditions
- Versatile range for other applications thus providing scope for rationalisation.

- Superior ultra fine filterability even in wet conditions
- Leading performance in anti-wear protection, oxidation resistance and thermal stability

#### Storage; Storage

All packages should be stored under cover. Where outside storage is unavoidable drums should be laid horizontally to avoid the possible ingress of water and the obliteration  
; All packages should be stored under cover.

of drum markings. Products should not be stored above 60°C, exposed to hot sun or freezing conditions.; of drum markings. Products should not be stored above 60°C, exposed to hot sun or freezing conditions.

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## Health, Safety and Environment; Health, Safety and Environment

Health, safety and environmental information is provided for this product in the Materials Safety Data Sheet. This gives details of potential hazards, precautions and First Aid measures, together with environmental effects and disposal of used products.; Health, safety and environmental information is provided for this product in the Materials Safety Data Sheet. This gives details of potential hazards, precautions and First Aid measures, together with environmental effects and disposal of used products.

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## Typical Characteristics; Typical Characteristics

Test Methods; Test Methods		Units; Units	Grade :: Grade :					
Density at 15 °C	ISO 3675	kg/m <sup>3</sup>	22 875	32 876	46 879	68 882	100 879	150 888
Flash Point (COC)	ASTM D1298	°C	192	216	225	240	246	267
Viscosity KV @ 40 °C	ISO 2592	mm <sup>2</sup> /s	22	32	46	68	100	150
100 °C	ASTM D92							
Viscosity Index	ISO 3104	-	4.2	5.4	6.8	8.7	11.4	14.6
Pour Point	ASTM D445	°C	90	100	100	100	100	95
Foam Tendency/Stability :	ISO 2909	ml	-30	-30	-30	-30	-30	-24
Sequence I : 24 °C	ASTM D2270							
Sequence II : 93 °C	ISO 3016	min	-	1.8	-	-	-	-
Sequence III : 24°C after	ASTM D97							
Air Release Time to 0.2 % at 50 °C	ASTM D892	min	5	5	10	10	10	-
Demulsification	IP 146	-	pass	pass	pass	pass	pass	pass
Corrosion-rust protection	ASTM D3427	-	1b	1b	1b	1b	1b	1b
Copper Corrosion 3h/100 °C	IP 313	mgKOH/g	0.22	0.22	0.22	0.22	0.22	0.22
Neutralisation Value	ISO 6614	-	15	13	10	7	6	4
Seal Compatibility Index	ASTM D1401	stage	12	12	12	12	12	12
24 h at 100 °C	ISO 7210	failure						
FZG gear test : A/8.3/90 °C	ASTM D665B							
	ISO 2160							
	ASTM D130							
	ASTM D974							
	IP 278							
	IP 334							
	DIN 51 354							

The above figures are typical of those obtained with normal production tolerance and do not constitute a specification.

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