



Balmerol[®] Protomac T – Series (ISO VG 32/46)

Premium Turbine Oil

Technical Data Sheet

Product Description:

Balmerol Protomac T - Series are high quality long life lubricants for steam, hydro and gas turbines. Balmerol Protomac T - Series oils are manufactured using Hydroprocessed, High VI Group II basestocks and carefully selected additives to provide excellent oxidation and thermal stability, water separability, resistance to foaming and corrosion. They have superior air release property for which is extremely essential for turbine lubrication.

Balmerol Protomac T - Series oils meet IS: 1012 – 2002, R & O Type DIN 51515 Part 1 and ISO 6743/5 classification Balmerol Protomac T - Series oils meet the following OEM specification: Siemens TLV 9013 04/01; BS 489; GEK 32568 A/C

Features & Benefits:

Excellent thermal & oxidation stability	Provides extended oil life, reducing overall lubrication cost Lower sludge and deposit generation, reduces fliter choking, lower maintenance cost and ensures reliable operation	
Excellent water separablity	Ensures better lubricant film and bearing protection	
Good Anti – Foam characteristics	Reduces cavitation, less damage to components, lower maintenance cost	
Zinc Free	No negative impact on environment	

Balmerol Protomac T - Series helps reduce overall maintenance and operating costs, which helps increase "Productivity".

Applications / Recommendations:

Balmerol Protomac T - Series oils are recommended for steam, hydro and gas turbines. These oils can also be used for circulating and hydraulic systems.





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Typical Properties:

Balmerol Protomac T - Series			
Properties	Protomac T 32	Protomac T 46	
ISO VG Grade	32	46	
Viscosity, ASTM D 445			
cst @ 40°C	32	46	
cst @ 100°C	5.5	6.9	
Viscosity Index, ASTM D 2270	105	104	
Pour Point, ^o C ASTM D 97	- 15	- 12	
Flash Point, °C ASTM D 92	215	228	
Copper Strip Corrosion, ASTM D 130, 3 hrs @ 100ºC	1a	1a	
Rust Characteristics, ASTM D665			
ASTM D 665/A	Pass	Pass	
ASTM D 665/B	Pass	Pass	
Foam Sequence, ASTM D 892			
Sequence l	20/0	20/0	
Sequence II	10/0	10/0	
Sequence III	20/0	20/0	
Neutralization No, TAN mg KOH/ gm	0.05	0.05	
Air Release, minutes, DIN 51381	3	4	
TOST, hours to 2 mg KOH, ASTM D 943	7000	7000	
RPVOT, minutes, ASTMD 2272	800	800	
Demulsibility, minutes, ASTM D 1401 (40 - 40 - 0)	10	10	

Health and Safety:

Balmerol Protomac T - Series oils are not expected to produce adverse effects on health when used for the intended application and the recommendations provided in the Material Safety Data Sheet (MSDS) are followed. For MSDS please contact your local Balmer Lawrie Marketing / Technical Service team.

For Further Information, contact:

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