

Balmerol® Protomac T (EP) – Series

Extreme Pressure Turbine Oil

Technical Data Sheet

Product Description:

Balmerol Protomac T (EP) Series are high quality long life lubricants for steam, hydro and gas turbines. Balmerol Protomac T (EP) 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 which is extremely essential for turbine lubrication.

Balmerol Protomac T (EP) Series oils meet IS: 1012-1987 (Reaffirmed 1993).

Features & Benefits:

Excellent thermal & oxidation stability

Provides extended oil life, reducing overall lubrication cost

Lower sludge and deposit generation, reduces filter choking, lower maintenance cost and ensures reliable operation

Very good anti-wear protection

Ensures better protection and less wear of components

Excellent water separability

Ensures better lubricant film and bearing protection

Good Anti – Foam characteristics

Reduces cavitation, less damage to components, lower maintenance cost

Balmerol Protomac T (EP) Series helps reduce overall maintenance and operating costs, which helps increase “Productivity”.

Applications / Recommendations:

Balmerol Protomac T (EP) Series oils are recommended for steam, hydro and gas turbines. These oils can also be used for geared turbines.

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Typical Properties:

Balmerol Protomac T (EP) - Series			
Properties	Protomac T (EP) 32	Protomac T (EP) 46	Protomac T (EP) 68
ISO VG Grade	32	46	68
Viscosity, ASTM D 445			
cst @ 40°C	29 - 33	43 - 48	64 - 72
Viscosity Index, ASTM D 2270	110	105	100
Pour Point, °C ASTM D 97	- 12	-12	- 12
Flash Point, °C ASTM D 92	205	210	210
Copper Strip Corrosion, ASTM D 130, 3 hrs @ 100°C	Not worse than 1	Not worse than 1	Not worse than 1
Rust Characteristics, ASTM D665			
ASTM D 665/A	Pass	Pass	Pass
ASTM D 665/B	Pass	Pass	Pass
Foaming tendency, volume of foam, ml, max, ASTM D 892			
Sequence I	Nil	Nil	Nil
Sequence II	Nil	Nil	Nil
Sequence III	Nil	Nil	Nil
Air Release, minutes, DIN 51381	3	3	5
TOST, hours to 2 mg KOH, ASTM D 943	5000	5000	5000
FZG Gear Test, Damage Load Stage, DIN 51534, Part 2	10	10	10

Health and Safety:

Balmerol Protomac T (EP) 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:

Balmer Lawrie & Co. Ltd.
 SBU: Greases & Lubricants (G&L) Division
 P- 43, Hide Road Extension
 Kolkata: 700088
www.balmerlawrie.com