



## Product Data

# CASTROL MOLUB-ALLOY® GEAR OILS™

## DESCRIPTION

CASTROL MOLUB-ALLOY® GEAR OILS were developed for the lubrication of enclosed gears. They are available in eight ISO- and AGMA-Viscosity Grades. CASTROL MOLUB-ALLOY® GEAR OILS meet the requirements of API GL-4.

CASTROL MOLUB-ALLOY® GEAR OILS self-lubricating solids of suitable grades are treated to increase their natural positive affinity to metal surfaces and are completely dispersed to assure a high protection against wear during the lubricants full working life.

- Manufactured from the highest quality mineral base oils. They were carefully selected for their optimum compatibility with CASTROL MOLUB-ALLOY® lubricating solids.
- Rust and oxidation inhibiting characteristics are maximized to afford effective rust protection and long life of the oil.
- High VI (Viscosity Index) enables this lubricant to accommodate wide temperature fluctuations.
- EP-additives provide for high load carrying capabilities.

## APPLICATION

- Recommended for the application in spur and herringbone gearing as well in straight or spiral toothed bevel gears.
- They are especially used for heavy duty and shock loading where extreme pressure characteristics are needed.
- CASTROL MOLUB-ALLOY® GEAR OILS are available in following viscosities:
  - SAE 100 to 140
  - AGMA 3 EP to 8 Comp.
  - ISO VG 100 to ISO VG 680.
- Can be applied by oil can, oil cup reservoir, splash and central or circulation systems.

## ADVANTAGES

- Reduced friction, most evident under boundary conditions is directly attributed to the presence of specially compounded lubricating solids. This benefit is most pronounced where frequent start-up, slow speeds and high and unexpected loads are encountered.
- Increase in the working life of parts by reduced friction.
- Oxidation inhibitors lead to a prolonged working life of the lubricant. They therefore help to decrease costs for spare parts, manufacturing losses and wages.

## NOTES FOR USE

- CASTROL MOLUB-ALLOY® GEAR OILS cannot be used in conjunction with diatomaceous earth filters.
- For the lubrication of gearings running under special conditions, i.e. very high operating temperatures, we recommend our synthetic gear oils CASTROL TRIBOL® 800.
- Quality Standard: CASTROL MOLUB-ALLOY® GEAR OILS exceed minimum requirements according DIN 51517, T. 3 for CLP gear oils (state December 2003) and are classified as CLPF gear oils according DIN 51502.

Molub-Alloy Gear Oils  
12.08.2005

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Die technischen Daten sind Durchschnittswerte, die jedoch innerhalb der festgelegten Spezifikation liegen. Diese Angaben entsprechen umfangreichen Prüfungen und Praxiserfahrungen. Bei der Vielfalt der Anwendungen kann daraus keine Verbindlichkeit für die Bewährung in jedem Einzelfall hergeleitet werden. Praxiserprobungen empfohlen. Änderungen der Zusammensetzung bleiben vorbehalten, gegebenenfalls in Absprache mit dem Kunden. Weitere Produkt-Informationen sind bei der Anwendungstechnik der Deutsche BP Aktiengesellschaft zu erfragen.

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## Technical data

	Unit	Value						Test method
<b>CASTROL MOLUB-ALLOY® GEAR OILS</b>	-	<b>80 W /100</b>	<b>814/150</b>	<b>90/220</b>	<b>690/320</b>	<b>140/460</b>	<b>170W/680</b>	-
Article-No.	-	1101	1620	1110	1420	1160	1170	-
ISO Viscosity Grade	-	100	150	220	320	460	680	DIN 51519
SAE Viscosity classification		80 W	85 W	90	N/A	140	140	DIN 51512
AGMA Lubricant Number		3 EP	4 EP	5 EP	6 EP	7 EP	8 Comp.	-
Density at + 15 °C	kg/m³	897	897	900	904	913	923	DIN 51757
Viscosity at + 40 °C + 100 °C	mm²/s	100 11.4	150 14.2	220 17.8	320 25	460 29.7	680 40	DIN EN ISO 3104
Viscosity index	-	94	99	88	100	95	97	DIN ISO 2909
Flash point	°C	216	238	238	238	238	254	DIN EN ISO 2592
Pour point	°C	- 33	- 23	- 18	- 15	- 15	- 12	DIN ISO 3016
Corrosion Test Test A (distill. water) Test B (synthetic sea water)	rating	0 0						DIN ISO 7120
FZG-Test (A/8.3/90) scoring load stage	-	> 12						DIN 51354
Four Ball Wear Test (1 h, 300 N) Weld load Wear scar diameter	N mm	3400 ≤0.40	3800 ≤0.40	4400 ≤0.40	4600 ≤0.30	4600 ≤0.35	3000 ≤0.40	DIN 51350-02 DIN 51350-03-B

1 mm²/s  $\hat{=}$  1cSt

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