



## Product Data

# CASTROL MOLUB-ALLOY<sup>®</sup> 9790

Multi-service lubricating grease

### DESCRIPTION

MOLUB-ALLOY<sup>®</sup> 9790 greases are heavy-duty lubricants formulated for multi-service, all-season applications and may be used on large draglines, shovels, drills and mill applications. They may be used in the following applications under the most severe environments

#### **Mill & kiln open gears**

**Open gears - racks & pinions - Dipper sticks - Rails & rollers**

**Large journal bearings - Large slow-speed rolling bearings**

MOLUB-ALLOY<sup>®</sup> 9790 may be used in both, raw and finish mill operations, such as those found in coal, cement, copper and phosphate mills, and in either ball or rod mills. The greases are also especially suited for open gears in cement kilns. MOLUB-ALLOY<sup>®</sup> 9790 offers an additional benefit to operators, by reducing the number of lubricants required for each machine and minimizing the potential for misapplication.

Formulated to address environmental concerns, the lubricants are free of lead, antimony, barium and chlorinated solvents. No solvents of any kind are used in MOLUB-ALLOY<sup>®</sup> 9790.

- The blend of synthetic and petroleum oils used in MOLUB-ALLOY<sup>®</sup> 9790 lubricants are selected for their physical and chemical stability, and for their exceptional serviceability over a wide temperature range. These fluids are compounded to flow readily in the film-forming process, yet resist "squeeze out" and cling tenaciously even to gear teeth that mesh vertically.
- MOLUB-ALLOY<sup>®</sup> 9790 lubricants contain solids of selected grade and size distribution which promote antiwear and load carrying properties beyond the capacity of conventional lubricants.
- The blend of synthetic and petroleum base fluids ensures excellent pumpability, even at low temperatures.
- The high base oil viscosity assures sufficient film thickness at low speeds, high loads and/or elevated temperatures.

### APPLICATIONS

- MOLUB-ALLOY<sup>®</sup> 9790 may be used from - 20 °C to + 90 °C. This is a general guideline and may be changed, depending on applications and conditions.
- MOLUB-ALLOY<sup>®</sup> 9790 is particularly suitable for service in severe conditions of dust, as found in open pit mining and in the cement industry. MOLUB-ALLOY<sup>®</sup> 9790 is designed to resist packing or hardening in the roots of gear teeth and in semi-enclosed gear cases.
- Careful attention has been given to the needs of large roller bearings to protect against extreme pressures and shock loads, and to provide sufficient film thickness to extend bearing life.
- MOLUB-ALLOY<sup>®</sup> 9790 lubricants may be applied either manually or with heavy duty automatic systems suitable for the NLGI grade used.

### ADVANTAGES

- Superior film endurance resists erosion from rain and sleet.
- Do not harden in gear tooth roots and facilitates easy removal from semi-enclosed gear cases.
- Multi-service, may be used for open gear and bearing applications on draglines, shovels, drills, mills and kilns.
- Reduce product inventory and minimizes the risk of contamination or misapplication.
- All-season, may be used all year-round.

Molub-Alloy 9790

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All reasonable care has been taken to ensure that the information contained in this publication is accurate at the date of printing. It should be noted however that the information may be effected by changes subsequent to the date of printing in the blend formulation or methods of application of any of the products referred to or in the requirements of any specification approval relating to any such Products

Castrol  
Wakefield House  
Aspect Park  
Pipers Way  
Swindon  
SN3 1RE  
United Kingdom  
Tel +44 (0)1793 452111  
Fax +44 (0)1703 486083



## Product Data

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### Technical data

	Unit	Value		Test method
		9790/2500-0	9790/2500-1	
<b>MOLUB-ALLOY 9790</b>	-	<b>9790/2500-0</b>	<b>9790/2500-1</b>	-
NLGI classification	-	0	1	DIN 51818
Worked penetration	0.1 mm	355 - 385	310 - 340	DIN ISO 2137
Thickener	-	special		-
Dropping point	°C	> 190		DIN ISO 2176
Base oil properties Viscosity at + 40°C at + 100°C	mm <sup>2</sup> /s	2500 100		DIN 51366
Flash point	°C	> 190		ISO 2592
Behavior in the presence of water at 90°C	-	0		DIN 51807/1
Copper corrosion at 100°C, 24 h	-	2		DIN 51811
Four ball EP test Weld load	N	5500/6000		DIN 51350
Four ball wear test Wear scar diameter at load 40 kg at load 20 kg	mm	0.9 0.9		ASTM D 2266
Timken EP Test, OK value	kg/lbs	> 20/45		ASTM D 2509
Deleterious particle max. scratches	-	< 10		ASTM 1404
Flow pressure at - 10°C	hPa	< 450		DIN 51805
FZG test, scoring load stage	-	> 12		DIN 51354-01

1 mm<sup>2</sup>/s  $\hat{=}$  1cSt

These technical data are based on average test results. Minor deviations may occur from case to case. For further product information please contact the Technical Service or Castrol Industrie GmbH.

### Notes for use

While climate conditions are important to product selection, particular applications and conditions may also influence the choice of the product. For additional information, please consult the technical services department or Castrol Industrie GmbH.

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