



# SHELL ALVANIA<sup>®</sup> GREASE MD 1 1/2

Multipurpose extreme pressure lithium grease for use in heavy equipment

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## Product Description

Shell Alvania<sup>®</sup> Grease MD 1½ (formally Shell Alvania Grease HD 1½) is a multipurpose, extreme pressure lithium soap grease containing an ISO 320 base oil blend and a specially formulated additive system.

## Application

Shell Alvania<sup>®</sup> Grease MD 1½ is suitable for use in heavy duty industrial equipment such as those found in steel mills, operating under adverse conditions such as high temperature, heavy and continuous shock loading, high speeds, and where contamination with water exists. Shell Alvania<sup>®</sup> Grease MD 1½ can be used both in centralized grease systems and in manual greasing applications.

## Features

Shell Alvania<sup>®</sup> Grease MD 1½ contains oil soluble extreme pressure (EP) additives, oxidation and corrosion inhibitors. It is very shear stable, retains its original consistency with working, protects against rust and resists water washing. This product is noncorrosive to non-ferrous bearing metals as well as steel. It has good high temperature stability and can be used in continuous service up to 250°F and for short periods up to 350°F.

## Benefits

- high shear stability
- outstanding protection against rust
- resistance to water washout
- good high temperature stability
- extreme pressure properties

## Approvals

Shell Alvania<sup>®</sup> Grease MD 1½ is suitable for the lubrication of roll neck bearings in steel mill applications. The high viscosity base oil along with good water resistant properties makes this grease suitable for many heavy duty industrial applications.

## Product Maintenance

Maintaining a clean work environment is critical when equipment greasing is performed. Grease fittings should be wiped clean prior to grease injection to prevent contaminants from entering the equipment. Bearing housings should be maintained one-third to one-half full of grease. Over-greasing should be avoided as excessive heat buildup can result. Complete cleaning and packing should supplement periodic relubrication via grease gun or centralized system with fresh grease on an appropriate schedule. Shell greases are available in lined containers to facilitate container disposal in compliance with local regulations.

<b>Typical Properties of Shell Alvania®Grease MD 1½</b>		
	Test Method	
Product Code		71206
NLGI Grade		1½
Appearance		Brown, Smooth
Lithium Soap, wt%		6.0
<b>Base Oil Viscosity</b>		
@ 40°C, cSt	D 445	313
@ 100°C, cSt	D 445	23.7
Penetration, dmm		
Unworked	D 217	305
Worked, 60X		310
Dropping Point, °F	Mettler	385
Rust Protection	D 1743	Pass
Copper Corrosion	D 4048	1b
Water Washout	D 1264	
wt. % loss at 175°F		3.5
Timken, OK Load, lbs	D 2509	40
Four-Ball EP	D 2596	
Load Wear Index, kgf		56
Weld Point, kgf		315
Four-Ball Wear, mm	D 2266	0.4
1 hr, 75°C, 1200 rpm, 40 kgf		
Greases Mobility, g/min	U.S. Steel Method	
0°F		5.7
20°F		66
40°F		230
Guide to Usable Temperature		
Min, °F		0
Continuous Service, Min, °F		250
Short Exposure, Min, °F		350

### Handling & Safety Information

For information on the safe handling and use of these products, refer to their Material Safety Data Sheets at <http://www.shell-lubricants.com/msds/>. If you are a Shell Distributor, please call **1+800-468-6457** for all of your service needs. All other customers, please call **1+800-840-5737** for all of your service needs. Information is also available on the World Wide Web: <http://www.shell-lubricants.com/>.