

PRODUCT INFORMATION

A PRODUCT OF AMERICAN CHEMICAL TECHNOLOGIES, INC.



DuraLife 460-HD

High Performance Multipurpose Grease

DESCRIPTION:

DuraLife 460-HD is a true multipurpose high performance grease. It can be used in any application that calls for NLGI #1 or #2 grease. **DuraLife 460-HD** is the latest development in the grease industry and is considered a synthetic type grease. It is formulated with synthetic thickeners and is designed to improve several properties over conventional multipurpose greases **DuraLife 460-HD** is compatible with most other thickener systems.

DuraLife 460-HD is made with premium quality high VI oils, additives and synthetic thickeners. The thickener is the latest development in the grease industry. Calcium Complex thickeners offer performance properties never before available in a multipurpose grease. First among these is incredible corrosion protection. Calcium Sulfonates are known worldwide for their corrosion protection. As part of the thickener system there is a significant amount of Calcium Sulfonate in **DuraLife 460-HD**.

DuraLife 460-HD is completely shear stable. There is no loss of thickening power over 100,000 cycles in a grease working test. This offers long re-greasing intervals in high speed bearings.

DuraLife 460-HD offers a very high dropping point. It can be used in any high temperature applications suitable for petroleum base grease. High polymer content makes this grease exceptionally water resistant. It has superb water washout and water spray off protection. Combined with the corrosion protection, these properties make **DuraLife 460-HD** an excellent grease for marine applications. The Calcium Sulfonate Complex thickener will also tend to keep machine parts free from deposits.

With excellent EP properties **DuraLife 460-HD** can withstand the toughest load conditions offered by off road machinery. It is excellent for chassis lubrication on heavy trucks. The EP performance is provided by liquid EP additives. **DuraLife 460-HD** does not contain molybdenum disulfide.

FEATURES

- A TRUE PREMIUM QUALITY MULTIPURPOSE GREASE
- EXCELLENT FOR DISC BRAKE WHEEL BEARING APPLICATIONS
- ULTRA MODERN CALCIUM COMPLEX THICKENER
- SHEAR STABLE OVER THOUSANDS OF CYCLES
- VERY HIGH DROPPING POINT - A GOOD HIGH TEMPERATURE GREASE
- HIGH EP
- NO MOLY DISULFIDE
- OUTSTANDING WATER RESISTANCE
- OUTSTANDING CORROSION PROTECTION

DuraLife 460-HD

PROPERTIES:

	Test Method	DL460-HD-1	DL460-HD-2
Appearance		Smooth	Smooth
Color		Green	Green
Thickener Type		Calcium Sulfonate Complex	Calcium Sulfonate Complex
NLGI Grade	ASTM D4950	1	2
Base Oil Viscosity @ 40 °C	ASTM D445	460 cSt	460 cSt
Base Oil Viscosity @ 100 °C	ASTM D445	31.5 cSt	31.5 cSt
Base Oil Viscosity Index	ASTM D2270	95	95
Grease Mobility @ 0°F	USS Method LT37	22 g/min	14 g/min
Dropping Point	ASTM D566	+266°C (+511°F)	+288°C (+550°F)
Cone Penetration @ 25°C (77°F)	ASTM D217	322 dmm	276 dmm
Worked 60 strokes		325 dmm	279 dmm
Worked 10,000 strokes		338 dmm	284 dmm
Worked 100,000 strokes		349 dmm	287 dmm
Roll Stability Penetration	ASTM D1831	345 (+7.0%)	293 (+5.0%)
Rust Prevention, water	ASTM D1743	Pass	Pass
Rust Prevention, saltwater	ASTM D1743	Pass	Pass
Oil Separation	ASTM D1742	2.0 %	0.50 %
Water washout 1 hr, 38 °C	ASTM D1264	1.10 %	0.05 %
EP Properties (Four-Ball Method)	ASTM D2596		
Weld Point		620 kg-f	800 kg-f
Load-Wear Index		63 kg-f	75 kg-f
OK Load (Timken Method)	ASTM D2509	65 lb-f	65 lb-f
Four-Ball Wear	ASTM D2266	0.54 mm	0.45 mm
Low Temperature Torque @40°C	ASTM D4693	7.00 Nm	9.00 Nm
High Temperature Life @ 160°C	ASTM D3527	110 hours	-
Wheel bearing leakage	ASTM D4290	7 g	4 g
Fafnir Bearing Weight Loss	ASTM D4170	9 mg	6 mg
Wheel Bearing Life	ASTM D3527	100 hours	100 hours
Elastomer CR 70 hour @ 100°C	ASTM D4289		
Hardness Change		0 %	0 %
Volume Change		5.7%	7.7 %
Elastomer NBR-L 70 hr @ 100°C	ASTM D4289		
Hardness Change		1.6 %	2.8%
Volume Change		-5%	-3 %

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