



TECHNICAL DATA BULLETIN

5180-5182 PYROSHIELD®

DESCRIPTION:

An extremely high load-carrying, lead-free lubricant developed for the mining industry and open gears which operate in heavy-duty service. LE's PYROSHIELD® has been formulated with a high viscosity, 100% synthetic base oil; non-melting thickening system and proprietary LE heat stable additives.

Contains ALMASOL®, LE's exclusive wear-reducing additive. This additive technology provides protection when subjected to the extremely high contact pressures encountered in gear applications.

PHYSICAL CHARACTERISTICS—TYPICAL:

	<u>5180</u>	<u>5182</u>
NLGI Grade		
As Applied	0	2
In Use	2	2
Thickener Type	Bentone	Bentone
Penetration: (ASTM D-217) Worked		
60 Strokes	355-385	265-295
10,000 Strokes (Change)	+14	+14
100,000 Strokes (Change)	+28	+28
Texture	Smooth/Tacky	Smooth/Tacky
Color	Dark Purple	Dark Purple
Dropping Point	Non-Melt	Non-Melt
Base Fluid		
Viscosity, cSt @ 100°C	690	690
SUS @ 210°F	3,358	3,358
Pour Point, °F (°C)	37 (3)	37 (3)

PERFORMANCE TEST RESULTS:

Timken OK Load, lbs., ASTM D-2509	90	90
Oxidation, psi drop/100 hrs., ASTM D-942	3	3
Rust Prevention Rating ASTM D-1743	Pass	Pass
Copper Corrosion, ASTM D-4048	1b	1b
Four Ball EP, ASTM D-2783		
LWI	136	116
Weld Point (kg)	620	500
Four Ball Wear, ASTM D-2266		
Scar Diameter (mm)	.71	.71
Water Spray Test, ASTM D-4049		
% Loss	<2.0%	<2.0%

LUBRICATION ENGINEERS, Inc.®

APPLICATION:

PYROSHIELD® is designed for use in mining equipment, open gears and fifth wheels. The lubricant's capabilities have been proven to protect equipment subjected to heavy shock loads in mining and industrial applications such as open gears and slides. PYROSHIELD's® synthetic base oil enables it to perform well in high temperature. For best results, when switching to LE's PYROSHIELD®, clean the area of application prior to applying.

Use of LE's 5180 PYROSHIELD®—Use adequate ventilation if LE's 5180 is used indoors. The lubricant contains a safe non-chlorinated solvent for improved pumpability and ease of application at low temperatures. After application the diluent vaporizes and the lubricant assumes the properties of an NLGI 5182 PYROSHIELD Grade 2. *The containers of LE's 5180 should be kept closed at all times to keep the solvent from evaporating from the product.* It is suggested that the product not be further diluted with solvent, even if partial evaporation has occurred, as the functional characteristics could be altered.

LE's 5180 PYROSHIELD® is also available in convenient aerosol spray cans as LE's 5100 PYROSHIELD® and contains no chlorofluorocarbons. This product is designed for use on open gears, chains and slides.

RECOMMENDATION:

Not recommended for anti-friction bearings.

BENEFICIAL QUALITIES:

Contains ALMASOL®, LE's exclusive wear-reducing additive.

Versatility—one product for walking cam mechanisms and open gears.

High load-carrying capacity.

No dropping point.

Excellent oxidation resistance and rust protection.

Excellent water resistance.

Carries 90 lb. Timken OK Load.

Select 100% synthetic base oils and synergistic additive technology.

Good low temperature pumpability.

Excellent adhesiveness causes grease to cling tightly and protect bearing surfaces.

High temperature resistance.

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TDBS5100