



Heavy Duty greases

A specialized product line for your fleet vehicles
and stationary equipment



Castrol® Heavy Duty greases
**prolong component
 life & maximize
 uptime**



Castrol® Pyroplex® Protection ES

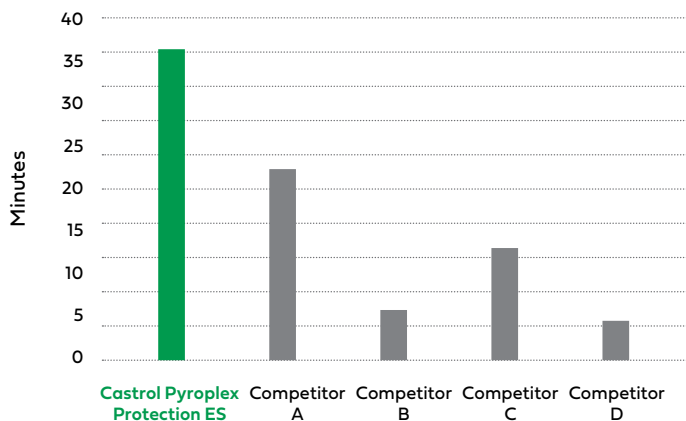
A full-synthetic grease that protects your on-road equipment and extends service intervals.

An extended-drain engine oil needs an extended-performance grease to truly capture the efficiencies. Castrol Pyroplex Protection ES is a synthetic lithium-complex grease specially formulated to provide extended service, even in winter conditions where highly corrosive chemicals or abrasive materials are used on the road. In higher operating and ambient temperatures, Castrol Pyroplex Protection ES resists breakdown due to its excellent thermal stability.

Castrol Pyroplex Protection ES helps your business to:

- Save money by extending maintenance intervals
- Keep equipment on the road longer without sacrificing wear protection
- Protect components against rust, oxidation and corrosion in extreme temperature and pressure environments
- Maximize oxidative stability for long lubricant life

ASTM D5483 Oxidation Induction Time, 210C



ASTM D5483 is a test which is used to measure a grease's ability to withstand oxidation under high temperature and pressure. A grease with outstanding oxidation stability is key for extending service life in on-road applications. Castrol Pyroplex Protection ES has the highest oxidation stability as compared to other on-road greases.

Castrol® Pyroplex® Gold MAXIMUM PROTECTION

A semi-synthetic grease providing Castrol's ultimate performance for off-road applications.

Castrol Pyroplex Gold contains more than 20% solids, including 6% molybdenum disulfide, which establishes a lubricant barrier in equipment to protect against wear, even during conditions of high load. Castrol Pyroplex Gold NLGI grade 2 combines the mobility of typical NLGI grade 1 grease with the staying power and extreme-pressure performance of an NLGI grade 3 grease.

Castrol Pyroplex Gold is designed to:

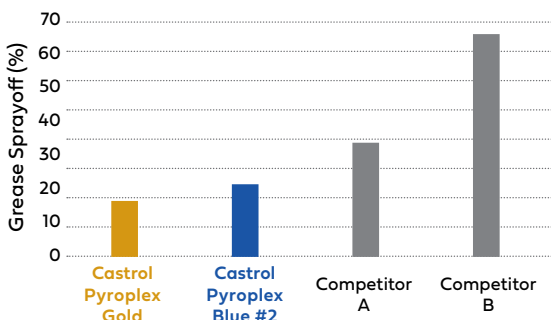
- Protect critical components against wear
- Provide excellent mobility at low temperatures
- Lower grease consumption and maintenance costs through resistance to water sprayoff

Hydro-Activation™ Technology

Castrol Pyroplex Gold uses exclusive Hydro-Activation technology, which increases tack and adhesion while maintaining mobility during wet and highly humid conditions.

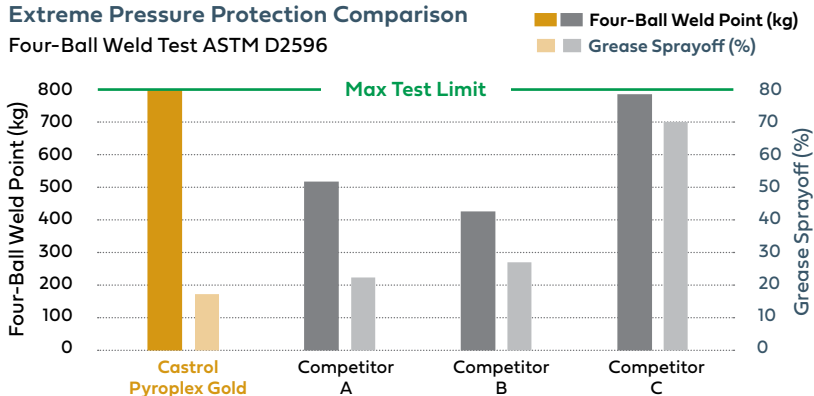
ASTM D4049 Water Sprayoff Test Results

With Hydro-Activation Technology



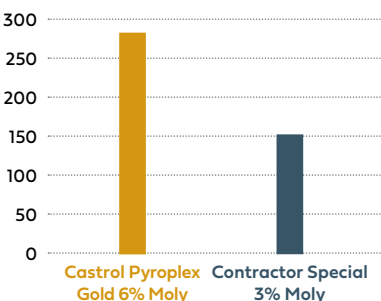
Extreme Pressure Protection Comparison

Four-Ball Weld Test ASTM D2596



Mobility and Adhesion Comparison

Mobility @ 60F (g/min)/Water Sprayoff (ASTM D4049)



We took two of our NLGI 2 greases and measured mobility at 60F; this value was then divided by the water sprayoff results from the ASTM 4049 test (Mobility @60F [g/min]/Water Sprayoff [ASTM D4049]). This gave us a measure of Pyroplex Gold's mobility and ability to stay in place after its application.

Castrol® Pyroplex® Blue

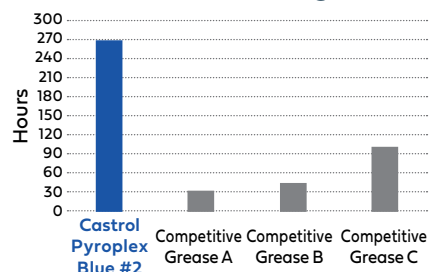
A high-quality, multipurpose grease designed for severe-service application in on-road and off-road environments.

Castrol Pyroplex Blue is a unique, lithium-complex grease that uses exclusive Hydro-Activation™ technology to maintain mobility while building tack and adhesion in wet conditions and highly humid environments. It is formulated with a proprietary additive package that promotes exceptionally long bearing life when compared with competitive grease products. Castrol Pyroplex Blue delivers almost twice the level of antiwear performance of a typical multipurpose ASTM D3527 Wheel-Bearing Life Test EP grease.

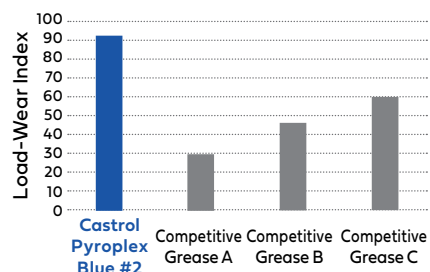
Castrol Pyroplex Blue offers:

- Enhanced EP (extreme-pressure) and antiwear performance to save time and money on maintenance and repairs
- Increased equipment uptime with resistance to water washout
- Reduced grease consumption through extended service intervals
- High dropping point, providing increased performance in the presence of heat

ASTM D3527 Wheel-Bearing Life Test



ASTM D2596 Load-Wear Index Test



Castrol® Pyroplex® Red

A multipurpose EP grease for moderate to heavy loads.

Castrol Pyroplex Red is a lithium-complex, extreme-pressure (EP) grease that has good thermal stability and can stay in place under moderate to heavy loads. It is formulated with high-quality extreme-pressure and antiwear additives, which give Castrol Pyroplex Red the ability to maintain wear protection under conditions of moderate shocks and loads.

Castrol Pyroplex Red is able to:

- Maintain wear protection in high-temperature, moderate-load environments
- Resist thermal breakdown
- Maximize service intervals due to reliable shear stability

This grease is formulated with select base stock and contains unique oxidation inhibitors. Castrol Pyroplex Red has excellent rust protection, mechanical stability and compatibility with other greases.



Castrol® Contractor Special

OUTSTANDING HIGH-LOAD PROTECTION

A moly grease that provides added protection in harsh off-road applications.

Castrol Contractor Special is a lithium-complex grease that contains 3% molybdenum disulfide. This solid additive helps Castrol Contractor Special maintain barrier lubrication and film strength during extremes of high loads, severe shocks, high temperatures and oscillating motion. Its antiwear additives offer protection from metal-to-metal contact during severe service conditions. Castrol Contractor Special is pumpable in high and low temperatures, cutting down on time and effort to grease components, especially during the winter months.

Castrol Contractor Special is able to:

- Protect critical components during high-load and severe-shock conditions
- Offer good antiwear protection to guard against premature wear
- Remain mobile in low temperatures

Castrol® Spheerol® SHL 00

A synthetic grease that delivers exceptionally long lubricant and component life for on-road fleets, Castrol Spheerol SHL 00 is a semifluid synthetic (PAO) that combines the mobility of a gear lubricant with the staying power of a grease. It can help alleviate oil leakage from wheel seals, which is a safety and environmental hazard. Castrol Spheerol SHL 00 can be utilized in many types of wheel-end systems designed for both oil and conventional greases, and has incredible staying power, which contributes to extended service intervals and longer lubricant life.

Castrol Spheerol SHL 00 helps your business to:

- Increase the safety of operations by eliminating leakage from wheel seals
- Decrease maintenance costs through extended operations
- Extend bearing life with high-quality, extreme-pressure and antiwear additives

Castrol® Fifth Wheel Grease

The first grease specifically designed to give you total control of your load regardless of the conditions around you.

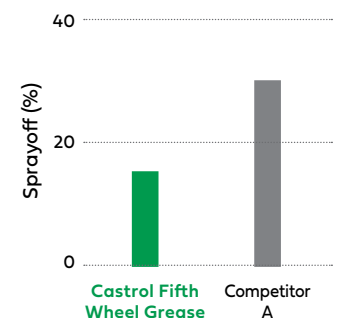
Castrol Fifth Wheel Grease is formulated with lubricating solids, such as graphite/moly, and has a high percentage of tackifiers, which help it adhere to metal surfaces and create a protective barrier against wear. In the ASTM D4049 Water Sprayoff Test, more than 90% of Castrol Fifth Wheel Grease remains in place by the end of the test. None of its competitors can make this claim.

Castrol Fifth Wheel Grease positively affects your bottom line by:

- Reducing the operating cost of power units because there is little wasted grease
- Decreasing the frequency of lubrication because it stays in place longer
- Eliminating overgreasing, which helps to maintain a clean, safe work area



**ASTM D4049
Water Sprayoff Test**



On-Road Applications

Best	Better	Good
Castrol® Pyroplex® Protection ES	Castrol® Pyroplex® Blue	Castrol® Pyroplex® Red
Synthetic Lithium Complex	Lithium Complex	Lithium Complex

Specific Applications

Light-Moderate Duty			
Heavy Duty	●	⦿	
Extended Service	●		
Enhanced Corrosion Protection	●		

Machine Applications

Wheel Bearings	●	⦿	●
U-Joints	●	⦿	○
Ball Joints	●	⦿	○
King Pins	●	⦿	○
Spring Pins	●	⦿	○
Slack Adjusters	●	⦿	○
GC-LB*	●	⦿	○

- best performance ⦿ better performance
 ○ good performance

*Note: Only PP Blue #1 is GC-LB rated

On-Road Grease Comparison

Attributes	Castrol Pyroplex Protection ES	Castrol Pyroplex Blue	Castrol Pyroplex Red
Appearance	Gray	Blue	Red
Load-Carrying Performance The ability of the grease to minimize metal-to-metal contact in extreme conditions. The higher the number, the better the grease performs.			
Timken OK Load (ASTM D2509)	50 kg	60 kg	50 kg
Four-Ball Weld (ASTM D2596)	400 kg	500 kg	400 kg
Water Resistance The ability of the grease to withstand water. The lower the percentage the better.			
Water Sprayoff (ASTM D4049)	25%	18%	55%
Water Washout (ASTM D1264)	3%	1.2%	3.2%
High-Temperature Performance The ability of the grease to perform in high temperatures.			
Dropping Point	575 °F	550 °F	538 °F

Off-Road Applications

Best	Better	Good	Good
Castrol® Pyroplex® Gold	Castrol® Pyroplex® Blue	Castrol® Pyroplex® Red	Castrol® Contractor Special
Aluminum Complex	Lithium Complex	Lithium Complex	Lithium Complex

Specific Applications

High Shock Loads	●	⦿	○	○
Mining	●	⦿	○	○
Wet Performance	●	⦿	○	○
Extreme Performance	●	×	×	×

Machine Applications

Crushers	●	●	○	○
Conveyors	○	●	○	○
Bulldozers	●	⦿	○	○
Shovels	●	⦿	○	○
Loaders	●	⦿	○	○
Hinge Pins	●	⦿	○	○
Bucket Pins	●	⦿	○	○

- best performance ⦿ better performance
 ○ good performance × not applicable

Off-Road Grease Comparison

Attributes	Castrol Pyroplex Gold	Castrol Pyroplex Blue	Castrol Pyroplex Red	Castrol Contractor Special
Appearance	Gold	Blue	Red	Gray
Load-Carrying Performance The ability of the grease to minimize metal-to-metal contact in extreme conditions. The higher the number, the better the grease performs.				
Timken OK Load (ASTM D2509)	70 kg	60 kg	60 kg	50 kg
Four-Ball Weld (ASTM D2596)	800 kg	500 kg	400 kg	400 kg
Water Resistance The ability of the grease to withstand water. The lower the percentage the better.				
Water Sprayoff (ASTM D4049)	12%	18%	55%	27%
Water Washout (ASTM D1264)	1.5%	1.2%	3.2%	
High-Temperature Performance The ability of the grease to perform in high temperatures.				
Dropping Point	500 °F	550 °F	538 °F	550 °F



For more information on Castrol Heavy Duty products and services:

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 **Castrol**
Heavy Duty
Lubricants