# BLACK PEARL® EP 1, 2 (formerly Black Pearl® Grease EP NLGI 1, 2)

## PRODUCT DESCRIPTION

Black Pearl® EP are multipurpose, polyurea, extreme pressure, water-resistant greases.

## CUSTOMER BENEFITS

Black Pearl EP delivers value through:

- **Excellent pumpability** — Easy pumping in typical centralized lubrication systems and at low temperatures.
- **High load capacity** — High film strength provide good overall EP performance, shock load protection and low wear protection.
- **Corrosion protection** — Passes the ASTM D1743 Bearing Rust Test.
- **Water resistance** — Product provides exceptional water wash out results.
- **Excellent adhesion** — These greases stay in place and continue lubricating under most operating conditions.
- **Long lubricant life** in storage and in use.

## FEATURES

Black Pearl EP are multipurpose, polyurea, extreme pressure, water-resistant greases.

Black Pearl EP greases are formulated with highly refined base stock, a polyurea thickener, and rust and oxidation inhibitors. They are black in color and smooth and buttery in texture.

## FUNCTIONS

Black Pearl EP provides outstanding film strength and adhesive properties. As a result, these products are particularly effective in providing excellent wear protection in heavily loaded and shock load conditions.

Black Pearl EP greases are formulated to stay in place, stick to bearing surfaces and, thus, provide excellent lubrication under a wide range of operating conditions. They perform particularly well in roller bearings. These products provide exceptional water wash out results. The rust inhibitors effectively protect bearing surfaces against corrosion. Pumpability is excellent over a wide range of temperatures as indicated by the Lincoln ventmeter test and the relatively low pressure drop in piping. Oxidation inhibitors promote long life in storage and in use. In addition, they also perform well at high temperatures.

## APPLICATIONS

Black Pearl EP greases are recommended for general lubrication service in many types of automotive and industrial applications.

**Typical industrial applications are:**

- Presses
- Antifriction bearings
- Low and high speed journal bearings
- Roller and needle bearings
- Shaker or classifier screen bearings
- Conveyors and run out rolls
- Electric motor bearings (only when roller bearings are in use)
- Exhaust fan bearings
- Crusher bearings
- Pump bearings

Product(s) manufactured in the USA.
Always confirm that the product selected is consistent with the original equipment manufacturer's recommendation for the equipment operating conditions and customer's maintenance practices.

A **Chevron** company product

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**Typical automotive applications are:**

- — Chassis points including ball joints and universal joints
- — Wheel bearings
- — Water pumps
- — Fifth wheels
- — Steering system bearings
- — King pins

Black Pearl® EP 1 and 2 work well in both plain and antifriction-type bearings, particularly those subjected to shock loading.


Black Pearl EP greases are registered by **NSF** and are acceptable as a lubricant where there is no possibility of food contact (H2) in and around food processing areas. The NSF Nonfood Compounds Registration Program is a continuation of the USDA product approval and listing program, which is based on meeting regulatory requirements of appropriate use, ingredient review and labeling verification.

## TYPICAL TEST DATA

| NLGI Grade | Test Method | 1 | 2 |
|---|---|---|---|
| *Product Number* | | *254592* | *254591* |
| *SDS Number* | | *7237* | *7237* |
| Operating Temperature, °C(°F)<br>Minimum[a]<br>Maximum[b] | | <br>-40(-40)<br>177(350) | <br>-40(-40)<br>177(350) |
| Penetration, at 25°C(77°F)<br>Unworked<br>Worked (60 strokes)<br>Worked (100,000 strokes) | ASTM D217 | <br>320<br>325<br>360 | <br>255<br>280<br>335 |
| Dropping Point, °C(°F) | ASTM D2265 | 270(518) | 270(518) |
| Timken OK Load, lb | ASTM D2509 | 70 | 70 |
| Four-Ball<br>Weld Point, kg | ASTM D2596 | 500 | 500 |
| Four-Ball<br>Wear Scar, mm | ASTM D2266 | 0.42 | 0.42 |
| Lincoln Ventmeter, psig at 30 s at<br>75°F<br>30°F<br>0°F<br>-22°F | K95400 | <br>215<br>235<br>280<br>625 | <br>300<br>350<br>800<br>† |
| Copper Corrosion, rating | ASTM D4048 | 1a | 1a |
| Bearing Rust Protection | ASTM D1743 | Pass | Pass |
| Water Washout, 79°C, % | ASTM D1264 | <1 | <1 |
| Thickener, %<br>Type | | 11.5<br>Polyurea | 13.5<br>Polyurea |
| ISO Viscosity Grade,<br>Base Oil Equivalent | | <br>220 | <br>220 |
| Viscosity, Kinematic<br>cSt at 40°C<br>cSt at 100°C | ASTM D445 | <br>220<br>14.4 | <br>220<br>14.4 |
| Viscosity Index | ASTM D2270 | 97 | 97 |
| Flash Point, °C(°F) | ASTM D92 | 260(500) | 260(500) |
| Pour Point, °C(°F) | ASTM D97 | -9(16) | -9(16) |
| Texture | | Smooth, Buttery | Smooth, Buttery |
| Color | | Black | Black |

a Minimum operating temperature is the lowest temperature at which a grease, already in place, could be expected to provide lubrication. Most greases cannot be pumped at these minimum temperatures.

b Maximum operating temperature is the highest temperature at which the grease could be used with frequent (daily) relubrication.

† Too stiff at this temperature to pump through device.

Minor variations in product typical test data are to be expected in normal manufacturing.