

BPW Grease – ECO-Li Plus



Introduction

BPW ECO-Li Plus grease is a class leading wheel bearing grease on the market, and like with many of the other original BPW replacement parts, there is a range of bearing grease types available that attempt to resemble or mimic the appearance of the BPW ECO-Li Plus grease. The result when using these greases is that they can compromise the safety and function of the running gear.

BPW's ECO-Li Plus grease is the result of a long (development) partnership between leading European grease manufacturers and BPW, which started in 1989. The development of the BPW grease started with the introduction of ECO-Li 91 grease, aimed at optimizing the life of tapered roller bearings. Due to the higher temperatures present in disk braked axles, the second generation **ECO-Li Plus** grease (from the basis of the ECO-Li 91), was developed. Here in South Africa, BPW uses only the **ECO-Li Plus** grease in the assembly of both disk and drum braked axles, to standardize our product offering.

Properties of the grease

The grease consists of 80% partly synthetic-oil, 15% soap while the rest is made up of lead-free additives which are responsible for the lubrication, corrosion protection, thermal resistance and to decrease the wear between the moving parts due to extreme pressures. The function of the high-quality lithium complex soap (the "Li" in the name) is to absorb the oil and it is designed in such a way that only a minimal amount of oil is continuously released from the soap. This ensures that the bearing is supplied with fresh oil over a long period of time. When BPW receives grease from the supplier the grease separation is first inspected. This is done by measuring how much oil has separated from the grease within 24 hours. Very fast bleeding grease shows itself as a hub which is covered in oil. This means that the oil, which is needed for the lubrication of the bearing track, is no longer available.

The additives in the ECO-Li Plus grease allow the grease to withstand temperatures of about 160°C at the wheel bearings for short periods of time. These temperatures cannot be reached with drum brakes, but it is possible to obtain such temperatures in short periods of time with disc brakes. The grease has been continuously tested at BPW and with transport companies throughout Europe to be able to withstand temperatures from -30°C to 130°C with peak temperatures of 160°C.

The ECO-Li Plus grease, is hygroscopic in nature and is able to absorb about 3.5% water before it starts to negatively affect the bearing. It is, therefore important that the hub unit is sealed against water and dirt. If the grease that is used, is too aggressive it will dissolve the seal and bearing plastic cage. The BPW seal and plastic cage have been extensively tested in conjunction with the ECO-Li Plus grease to guarantee compatibility and durability.

Conclusion

The ECO-Li Plus grease has been developed and tested by BPW for many years and is still continuously tested and improved to ensure optimum lubrication, protection and compatibility with the components of the hub unit. The production method of the grease has to this day not been changed, only improved, to ensure a high-quality grease. The grease, although expensive, certainly offers the lowest cost of ownership to transporters!