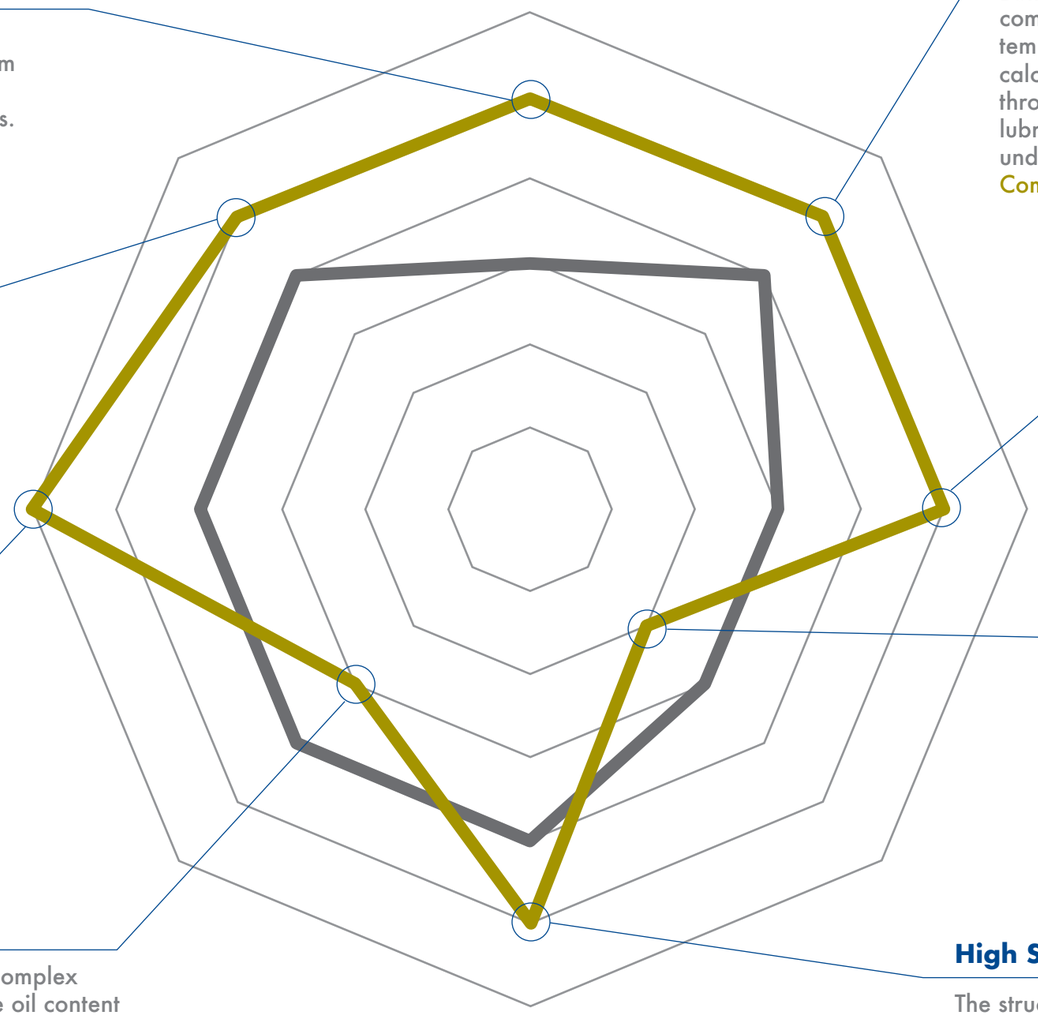
Calsullence vs. Lithium Complex: General Performance Comparison

Graphs indicating performance of lithium complex and calcium sulphonate complex grease using 220 cSt mineral oils and standard EP additivation.

Calsullence Grease

Lithium Complex Grease



High Load

Standard grease technologies rely on additives to resist high loads. The functional thickener in calcium sulphonate complex grease inherently provides enhanced resistance to high loads and shock loads.
Compared to Lithium Complex: **MUCH BETTER**

High Temperature

Both lithium complex greases and the calcium sulphonate complex grease have the ability to function at elevated temperatures. However, the higher thickener content of the calcium sulphonate complex greases brings an advantage through its enhanced ability to maintain an effective lubrication film at elevated temperatures and especially under high loads.
Compared to Lithium Complex: **BETTER**

Slow Speed

Assuming equivalent base oil viscosities and NLGI grade, the higher thickener content of the calcium sulphonate complex grease is better able to maintain a sufficient lubrication film under slow speed conditions.
Compared to Lithium Complex: **BETTER**

Sealing Ability

The ability of a grease to act as a seal against fluids, dust and debris depends on composition and consistency.
Compared to Lithium Complex: **BETTER**

Water Resistance

The water resistant performance of the calcium sulphonate complex thickener is reflected in its ability to maintain consistency and to lubricate in the presence of water.
Compared to Lithium Complex: **MUCH BETTER**

High Speed

The high thickener content in calcium sulphonate complex greases means that these types of greases generally are dry and do not release equal amounts of oil, compared to standard thickener systems. The lower lubricity results in higher friction, especially at lower temperatures, which is an important aspect under high speed conditions.
Compared to Lithium Complex: **WORSE**

Low Temperature

The high thickener content in calcium sulphonate complex grease has a corresponding tendency to lower the oil content of the overall formulation which combined can contribute to greater resistance to flow when compared with standard thickeners. At lower temperatures this means that the grease is more difficult to move which can result in higher friction.
Compared to Lithium Complex: **WORSE**

High Shear

The structural stability of modern complex products are generally good and typically able to perform sufficiently to the levels required of its intended application. The stable nature and higher thickener content of the calcium sulphonate complex thickener provides a benefit in its ability to withstand mechanical shear.
Compared to Lithium Complex: **BETTER**