



## Alphasyn GS

Synthetic Gear Oils

### Description

Castrol Alphasyn GS are fully synthetic gear lubricants based on carefully selected polyglycol fluids and containing antioxidant, rust-inhibiting and EP additives of high thermal stability.

### Application

The Alphasyn GS range has inherently superior properties relative to mineral lubricants, therefore these grades are especially suitable for the high temperature lubrication of gears and bearings, particularly in large scale mills and calenders.

In worm gears operating with mineral oil at low speeds and high torques, conditions of boundary lubrication tend to promote pitting and consequent rapid wear of bronze worm-wheels. Fatty oils (also known as compounded oils) were found to be effective in reducing pitting, but suffered from rapid oxidation at high running temperatures. Alphasyn GS grades are suitable for these applications and also allow extended drain and change intervals. Some manufacturers employ them for fill-for-life lubricants.

### Advantages

- Reduced frictional losses leads to reduced energy consumption and lower sump temperatures.
- Higher thermal stability, hence minimal formation of sludge and deposits.
- Better load-carrying properties and reduced wear compared with conventional mineral oils.
- Inherently higher Viscosity Index (VI) which, with the lower pour point, results in a wider range of service temperatures (-30 °C to 150 °C continuous bulk temperatures, with intermittent operating temperatures of up to 220°C)

