

# Case Study - Heat Treatment Furnace Grease

# **Application**

IKV Lubricants has been a leader in the field of high performance lubricants for many years & has met the increasing demands for tribological products that meet the requirements of the industries OEM's. Our customer required a lubricant for roller bearings in a heat treatment furnace. The customer was using a lithium complex PAO (460 cSt—NLGI grade 1.5) with temperature capacity of –40 to 180°C. They were experiencing catastrophic failure due to the accumulation of coking residues.



### **Application Requirement**

- Lubricant capable of working 24 / 7—
  330 days per annum
- Furnace temperature from 600 to 1100°C according to steel type (though lubricant does not see that temperature).
- Low rotation speed of 1 to 20 m/min
- Bi-directional movement of cutting process & presence of heavy shocks and vibrations
- Lubrication via central lubrication system

#### **ABOUT ZAROX TYA 511**

ZAROX TYA 511 is an NLGI grade 1, non-flammable white grease developed from a PFPE (perfluoroalkylpolyether) type oil, a micronized PTFE thickener and an anti-corrosive additive (not sodium nitrate). It is totally inert physically & chemically in the presence of aggressive liquids or gases (except for fluorinated solvents) and thermal & ionising radiation.

**ZAROX TYA 511** is also compatible with all widely used elastomers, seals, gaskets, plastics & metals.

## **Applications Include**

- Bearing lubrication—sliding bearing or joints subject to high temperatures or aggressive conditions.
- Curing ovens in glass, textile, plastic film. Paint, chemical, nuclear, corrugated card & furnace applications.
- Lubrication in thin films of sliding electrical contacts or as a dielectric agent.

Useful temperature range: -30 to 300°C

IKV's fluorinated oils and greases offer the ultimate in lubricant performance throughout a wide range of different industries and applications where conventional and other synthetic lubricants are not able to survive.

