

Lubrication of rolling bearings and sliding guides of tea packaging machines



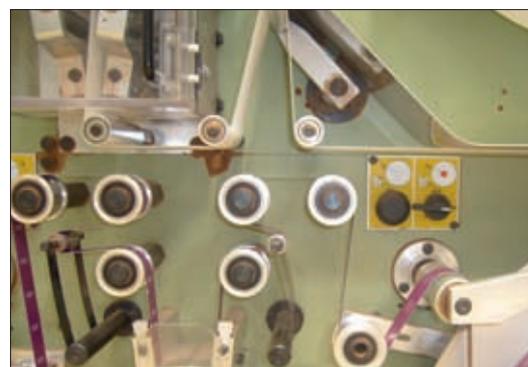
Extreme-Temperature Bearing Grease



Advantages and benefits

- Excellent media resistance, e.g. against inorganic acids such as sulphuric, hydrochloric and nitric acid
- Excellent plastic and elastomer compatibility
- Completely resistant to water and steam
- Excellent wear protection
- NSF H1 registered (Reg. No. 124380)

Tea bags are small bags made of special filter paper. In order to ensure the purity of foodstuffs they are usually produced without adhesives by using a special folding process. Today's tea bag with two chambers was invented by Adolf Rambold, an employee of the Teekanne company. 1949 saw the launch of the "Constanta tea packaging machine", also developed by Rambold. The end of the same year saw the market launch of the dual-chamber bag with staple closing patented by Teekanne that is used until the present day. Rambold folded a rectangular paper strip, about 15 cm long, to the shape of a hose that was folded in the middle and was filled with tea from both ends. The longer end was folded over the other and closed using a staple. This resulted in two chambers with the advantage that hot water reached the tea from all sides. Rambold's machine allowed serial production of tea bags. Modern packaging machines fill up to 450 tea bags per minute. The market leader alone produces and fills approximately 10 million tea bags every day.



Product description

OKS 4220 is a special extreme temperature grease on the basis of perfluoropolyether with PTFE as a thickener. In addition to the extraordinary temperature stability up to 280 °C, the grease is completely inert chemically and thus also resistant to aggressive media such as inorganic acids. In addition, OKS 4220 is physiologically harmless, tasteless and odourless and has been certified by the NSF in the Category H1.

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Example of use: Extreme-Temperature Bearing Grease

Temperatures of approx. 220°C occur at the lubricating points of the packaging machines during hot sealing of the tea bags. The hot glue itself has a temperature of approx. 330°C. The guide rollers of the conveyor belts and the slideways in the machines are lubricated with OKS 4220. The filling process runs in 2-shift operation with approx. 55 tea bags per minute or 50,000 tea bags a day.

Relubrication is carried out once a day. In comparison to the high-temperature grease of a competitor that was previously used,

OKS 4220 has a considerably higher temperature stability. Relubrication is deliberately carried out more often than necessary (thus not exploiting the potential of OKS 4220 fully) – since the slightest fault in the process would result in incorrectly packaged tea bags and thus to a machine standstill.



Further OKS products for use at tea packaging machines

OKS 470	For lubricating normal bearing points of the packaging machines and conveying equipment if contact with the tea is technically excluded.
	Multipurpose Grease for bearing lubrication in food processing technology
OKS 370/371	For lubricating mechanisms at the machines that come into direct contact with the tea. Also to lubricate the needles of the packaging machines with which the tea bags are sewn.
OKS 2650	For cleaning machines/machine components during servicing and care.
OKS 451	For lubricating the chains of the conveying systems used for the packaged palettes in the storage room.
OKS 601	As a universal lubricant for servicing