Storage guidelines

for coated elastomer components

General

When storing coated elastomer components, both the physical and chemical properties of the elastomer and the physical, chemical and functional properties of the applied solid film lubricants may change. Changes in the base material can, in individual cases, affect the coating and influence its performance. This is caused by various factors, some of which may be combined, such as oxygen, ozone, light, elevated temperatures, mechanical deformation, moisture and contact with oils, solvents or other media.

Observe manufacturer's instructions

The specifications of the respective product manufacturers regarding storage conditions, permissible storage periods and the necessary testing and inspection measures for products and elastomer materials must be observed as a matter of priority. These specifications are usually based on relevant standards such as DIN 7716, ISO 2230 or DIN 9088. The following recommendations for the storage of coated elastomer components are based on these standards. They serve to preserve the physical, chemical and functional properties of coated elastomer components and must be taken into account when storing them.

Packaging

Storage in airtight and light-protected PE bags is strongly recommended.

Handling/hand perspiration

Coated components should not be touched with bare hands before storage, if possible, in order to avoid contamination from hand perspiration. Components of hand perspiration can react chemically with the applied lubricating coatings during prolonged storage and impair their properties.

Heat and humidity

The storage temperature of coated elastomers should preferably be between +15°C and +25°C. Direct contact of the components with heat sources such as radiators or direct sunlight should be avoided.
The relative humidity in the storage rooms should be below 65% if possible, and there should be no condensation on the components.

Light and radiation

Coated elastomer components should be protected from light sources, direct sunlight and UV light. UV-protected packaging is preferable (see: Packaging). Exposure of the coated components to harmful ionizing radiation should also be avoided.

Oxygen/ozone/oxidation

Elastomer components should be stored in packaging or airtight containers to protect them from circulating air and ozone. No ozone-generating devices such as mercury vapor lamps, older printers or copiers may be operated in storage rooms. Since coated elastomer components are subject to oxidative influences even under optimal storage conditions, prompt further processing after coating should be aimed for; longer storage times should be avoided if possible.

Deformation

Coated elastomer components must always be stored stress-free; storage under compression, deformation or in a pre-assembled state must be avoided. Items delivered stress-free should remain in their original packaging for storage if possible.

LABS-compliant quality

LABS-free or LABS-compliant cleaned products should generally not be stored, regardless of any additional coating, but are intended for immediate use. Reactions of the elastomer with the environment can have a negative effect on the LABS compliance of elastomers.

Storage period/inspection

The permissible storage period for coated elastomer components depends largely on the type of elastomer, the coating system used and the prevailing storage conditions. If the storage recommendations are followed and no material-related interactions between the elastomer and the coating material are apparent before storage, coated elastomer components can be stored for up to one year without any change in their quality properties.

After this period, it is recommended that the coating be tested for its qualitative and functional properties before using the components or extending the storage period.