RÖCHLING Engineering Plastics

RÖCHLING news & knowledge

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# LubX® - High Performance Sliding Material for Material Handling

## LubX® - High Performance Sliding Material

With LubX® C, Röchling Engineering Plastics offers a new high performance material, which has outstanding dry-running properties at their disposal. It has been especially developed for applications in material handling and automation technologies. Compared with conventional sliding materials, conveying systems equipped with LubX® C need considerably less energy. The considerably lower coefficient of friction of LubX® C eliminates the possibility of the slip-stick effect (back sliding) almost completely and thus increases process stability.

**Tribological systems:**
In the development of LubX® C, great care has not only been taken to minimize the coefficient of friction of the sliding materials, but also to consider the tribological system of the sliding partners in an integrated manner. The individual motion and transport segments of different conveying systems were analyzed, and the relative movements of the elements and the frictional forces arising at the points of contact examined. These frictional forces have a decisive impact on the performance of the conveying system.

**Energy efficiency:**
With energy prices rising in the long term, lowering energy costs plays an increasingly more important role in the project planning of production, storage and logistic processes. When utilizing components with optimized sliding properties in conveying processes, the conveying power required – and thus the energy applied – may be reduced to a minimum.

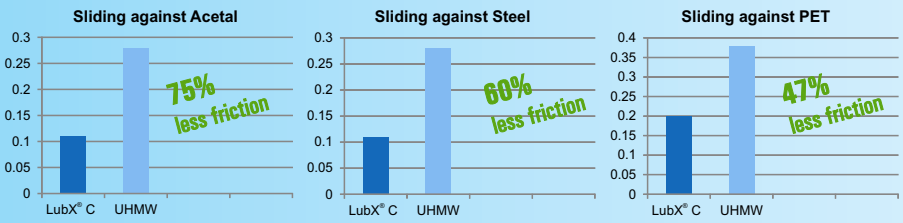
**Product Features:**

- Coefficient of friction up to 75% less than standard UHMW-PE
- Outstanding dry-running properties
- Energy saving
- FDA Compliant
- Noise reducing
- Eliminates the slip-stick effect (back-sliding)


Available as:
Sheets: 1/4" to 4" thick
Color: Blue-Grey

## Comparison of sliding properties

**Coefficients of sliding friction under dry conditions**




***Validated on the application-related Röchling tribology test stand**

Röchling Engineering Plastics offers the most comprehensive product line in the USA and Canada including:

- Polystone® M (UHMW-PE)
- Polystone® P (Polypropylene)
- Polystone® G (HDPE)
- Sustamid® Nylon
- Sustarin® Acetal
- Susta HPM's

*The values indicated result from numerous measurements for an approximation of the values and are to our best knowledge. They serve as information about our products and are presented as a guide to choose from a range of materials. This however does not include an assurance of specific properties or the suitability for particular application purposes that are legally binding. Since the properties also depend on the dimension of the semi-finished products and the degree of crystallization (e.g. nucleating by pigments), the actual values of the properties of a particular product may differ from indicated values.*

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# Technical Data Sheet

## LubX® C

| | Test method | Unit | Value |
|---|---|---|---|
| **General properties** | | | |
| Density | DIN EN ISO 1183-1 | g/cm³ | 0,93 |
| Water absorption | DIN EN ISO 62 | % | <0,01 |
| Flammability (Thickness 3 mm / 6 mm) | UL 94 | | HB |
| **Mechanical properties** | | | |
| Impact strenth | DIN EN ISO 179 | mJ/mm² | no break |
| Notched impact strength (charpy) | DIN EN ISO 179 | kJ/m² | no break |
| Shore hardness | DIN EN ISO 868 | scale D | 63 |
| Wear resistance 90 | Sand-slurry | | 90 |
| Sliding properties: partner Acetal | REP – Tribology – Test | | 0,08 |
| Sliding properties: partner steel | REP – Tribology – Test | | 0,11 |
| **Thermal properties** | | | |
| Crystalline grain melting range | DSC | °C | 133-135 |
| Temperature range | Average | °C | -150…80(*) |
| Temperature range (short term) | Average | °C | 130 (*) |
| **Electrical properties** | | | |
| Surface resistivity | DIN VDE 0303 | Ω | $>10^{14}$ |
| Volume resistivity | DIN VDE 0303 | Ω *cm | $>10^{15}$ |

The data stated above are average values ascertained by statistical tests on a regular basis. They are in accordance with DIN EN 15860. The data above are provided purely for information and shall not be regarded as binding unless expressly agreed in a contract of sale.

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