# Dr. Tillwich GmbH Werner Stehr

## **Product Specifications**

### Laboratory Data:

Viscosity					
Temperature	v <b>(mm²/s)</b>				
0 °C [32 °F]	240				
20 °C [68 °F]	70				
40 °C [104 °F]	30				
Viscosity-Index (ISO)					
Viscosity-Temperature-Behaviour					
	0 °C [32 °F] 20 °C [68 °F] 40 °C [104 °F] ISO)				

Color	slightly yellow, clear
<b>Permanent Low Temperature</b> 72 hrs fluid	-30 °C [-22 °F]
Application Temperature	-25 °C to +80 °C [-13 °F to +176 °F]
Density 20 °C [68 °F] (DIN)	0.95 g/cm <sup>3</sup>
Surface Tension	31 mN/m
Evaporation Rate	0.1 %
24 hrs/105 °C [221 °F]	very low
Drop Stability	good
Durability	good
Corrosion Resistance	brass: very good steel: very good
Composition	synthetic oil on ester base with hydrocarbons

#### friction moment M 1/2" sphere **Bearing material** prism Metal normal load F<sub>N</sub> Polymer Mineral **Friction Behaviour** dependent on sliding speed Application temperature f friction coefficient f v (mm/s) 0.4 0.2 0 0.15 20 0.14 50 0.02 200 0.01 materials: steel/brass, load 3 N, 25 °C [77 °F] Silber B Bearin lubricant: Wear Behaviour comparison: dry and lubricated with Silber B materials wear (in mm 0.3 1.0 St/brass: TK2300 Sliding dry St/steel: TK2300 dry load 30 N, distance 10 km, test parameters: 25 °C [77 °F], v=28.1 mm/s

### **Comments:**

Silber B is a synthetic watch and instrument oil based on esters and with a small amount of synthetic hydrocarbons. Its excellent pressure absorption capacity and the high surface tension ensure for-life lubrication of highly loaded sliding bearings. Suitable for high and low velocities. Low inner friction due to low viscosity. Compatibility tests are necessary if used with plastics!

## **Application:**

**Tribological Data:** 

Test System: sphere on prism (ISO 7148/2)

Lubrication of highly loaded, low or high-speed metal and jewel bearings up to pocket-watch calibers.

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Certified acc. to ISO 9001

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## Silber **B** Article No. TK2300 Watch and Instrument Oil

Product