Dr. Tillwich GmbH
Werner Stehr

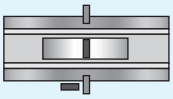
Church Clock Oil

Article No. TK1310

Partially Synthetic Precision Oil

Product Specifications

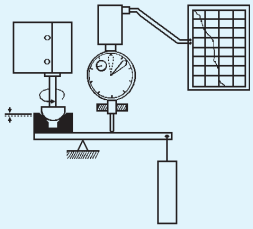
Laboratory Data:

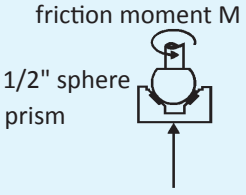
Viscosity		
Stabinger (ASTM D7042)	**Temperature**	**ν (mm²/s)**
	0 °C [32 °F]	880
	20 °C [68 °F]	180
	40 °C [104 °F]	60
Viscosity-Index (ISO)		100
Viscosity-Temperature-Behaviour		good

Color	light yellow
Permanent Low Temperature 72 hrs fluid	-25 °C [-13 °F]
Application Temperature	-20 °C to +70 °C [-4 °F to +158 °F]
Density 20 °C [68 °F] (DIN)	0.89 g/cm³
Surface Tension	32 mN/m³
Evaporation Rate 24 hrs/105 °C [221 °F]	0.5 % low
Drop Stability	good
Durability	good
Corrosion Resistance	brass: very good steel: very good
Composition	natural and synthetic hydrocarbons with additives

Tribological Data:

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





Friction Behaviour
dependent on sliding speed

v (mm/s)	**f**	friction coefficient f (0.1 0.2 0.3 0.4)
0	0.16	
20	0.04	
50	0.02	
200	0.03	
materials:	steel/brass, load 3 N, 25 °C [77 °F]	
lubricant:	Church Clock Oil	

Wear Behaviour
comparison: dry and lubricated with Church Clock Oil

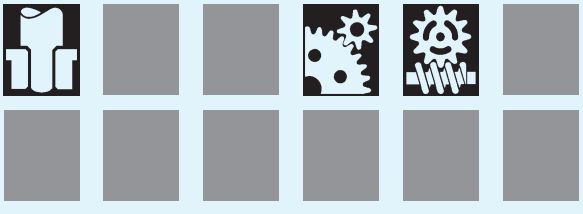
materials	wear (in mm) (0.01 0.03 0.1 0.3 1.0)
St/brass: TK1310	
dry	
St/steel: TK1310	
dry	
test parameters:	load 30 N, distance 10 km, 25 °C [77 °F], v=28.1 mm/s

Comments:

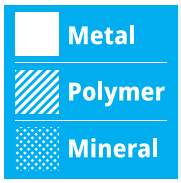
Partially synthetic precision oil with high ageing stability, corrosion resistance on base of various mineral oils and polyalphaolefines. The good film stability ensures a reliable lubrication in boundary and mixed friction area.

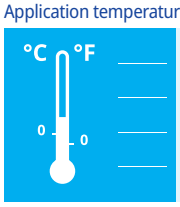
Application:

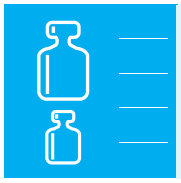
For all metal/metal-precision bearings in church clocks.

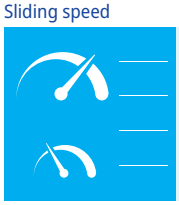


Product

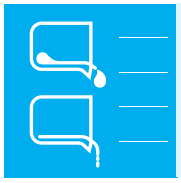

Bearing material


Application temperature


Bearing load


Sliding speed


Durability


Viscosity


Wetting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