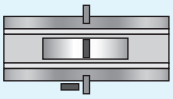
Dr. Tillwich GmbH
Werner Stehr

Clock 992
Article No. TS5200
Precision Lubricant for Metal Bearings

Product Specifications

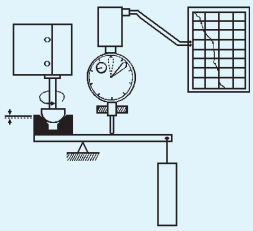
Laboratory Data:

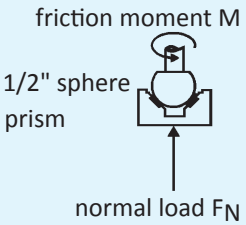
Viscosity		
Stabinger (ASTM D7042)	**Temperature**	**ν (mm²/s)**
	0 °C [32 °F]	300
	20 °C [68 °F]	90
	40 °C [104 °F]	40
Viscosity-Index (ISO)		150
Viscosity-Temperature-Behaviour		good

Color (ASTM)	yellow, clear
Permanent Low Temperature 72 hrs fluid	-15 °C [+5 °F]
Application Temperature	-10 °C to +120 °C [+14 °F to +248 °F]
Density 20 °C [68 °F] (DIN)	1.0 g/cm³
Surface Tension	26 mN/m
Evaporation Rate 24 hrs/105 °C [221 °F]	0.1 % very low
Drop Stability	very good
Durability	very good
Corrosion Resistance	brass: good steel: very good
Compatibility with Plastics	on request
Composition	arylpolyalcanoate

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	0.08	
20	0.05	
50	0.02	
200	0.01	
materials:	steel/brass, load 3 N, 25 °C [77 °F]	
lubricant:	Clock 992	

Wear Behaviour
comparison: dry and lubricated with Clock 992

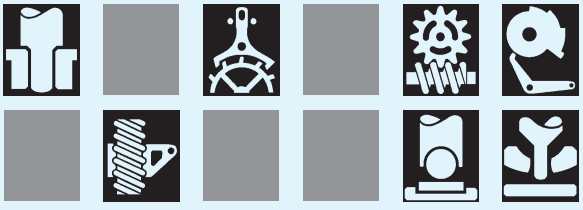
materials	wear (in mm) (0.01 / 0.03 / 0.1 / 0.3 / 1.0)
St/brass: TS5200	
dry	
St/steel: TS5200	
dry	
test parameters:	load 30 N, distance 10 km, 25 °C [77 °F], v=28.1 mm/s

Comments:

Outstandingly low friction values even at high loads and high sliding speeds. Excellent wear reducing properties. Due to a special treatment the oil does not spread, point lubrication is possible. Superb stability against ageing even in contact with non-ferrous metals, lifetime lubrication is possible.

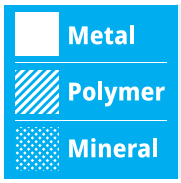
Application:

Clock 992 is a synthetic precision lubricant for metal bearings (e.g. brass/steel, steel/steel, aluminum/steel) in clock movements, alarm clocks and watches, precision gears, linear guides, connecting links, helical gear trains and worm gears.

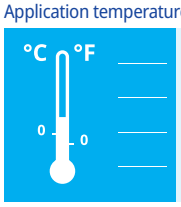


Product

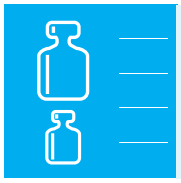
Bearing material



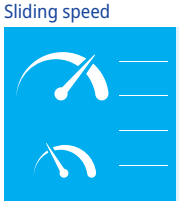
Application temperature



Bearing load

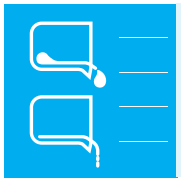


Sliding speed



Durability

Viscosity



Wetting

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