Dr. Tillwich GmbH
Werner Stehr

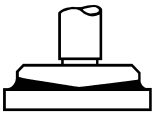
Product Specifications

LGN Watch Grease

Article No.: TF1600

Synthetic High Precision Watch and Clock Grease

Laboratory Data:

Dynamic Viscosity (DIN)		
D = 1000/s cone C60 1°	**Temperature**	**η (mPa·s)**
 system cone-on-plate	25 °C [77°F]	425 - 575
	Viscosity-Index (ISO)	130 (base oil)
Flow Behavior	slightly intrinsically viscous	
Viscosity-Temperature-Behavior	good	

Color yellow, tansparent

Dropping Point 170°C [338°F]

Permanent Low Temperature -40°C
Base Oil (72 hrs fluid) [-40°F]

Application Temperature -30°C to 90°C
[-22°F to 194°F]

Base Oil LGN Watch Oil

Viscosity Base Oil 125 mm²/s
20°C [68°F]

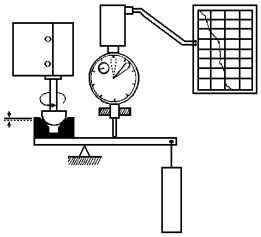
Thickener combination of metal soaps and anorganic gel thickener

Durability very good

Corrosion Resistance brass: very good
steel: very good

Tribological Data:

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



Friction Behavior
dependent on sliding speed

v (mm/s)	**f**	friction coefficient f (0.1 / 0.2 / 0.3 / 0.4)
0	0.09	
20	0.07	
50	0.04	
200	0.02	
materials:	steel/brass, load 3N, 25°C [77°F]	
lubricant:	LGN Watch Grease	

Wear Behavior
comparison: dry and lubricated with LGN Watch Grease

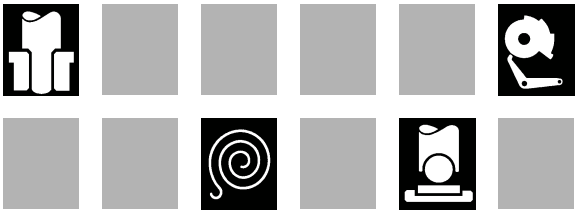
materials		wear (in mm) (0.01 / 0.03 / 0.1 / 0.3 / 1.0)
St/bs:	**lubricated**	
	dry	
St/st:	**lubricated**	
	dry	
test parameters:	load 30N, distance 10 km, 25°C [77°F], v = 28.1 mm/s	

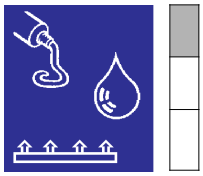
Comments:

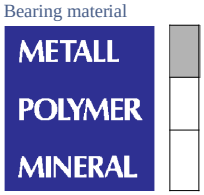
Metal soap thickened grease based on ester oils with an additional anorganic gel thickener. Its semi-fluid consistency eases application. Because of its excellent lubricating properties it may be used in highly loaded bearings. Very low static friction coefficient. Very good adhesion of the grease on the surface. No separation of the oil. Do not use for lubrication of plastic materials.

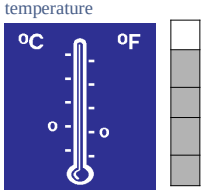
Application:

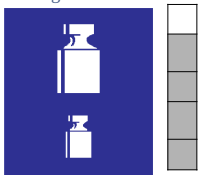
For sliding combinations out of metals (e. g. brass/steel, steel/steel, etc.). in watches, clocks and instruments. For lubrication of pivots, winding-mechanisms, clicks, open slide-ways, mainsprings and pallet pins.

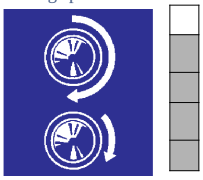


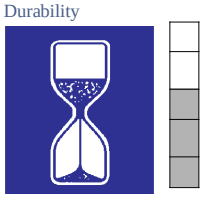
Product


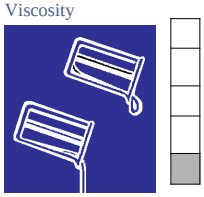
Bearing material


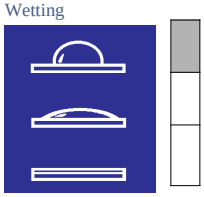
Application temperature


Bearing load


Sliding speed


Durability


Viscosity


Wetting


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