Dr. Tillwich GmbH
Werner Stehr

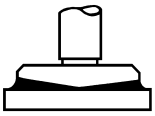
Product Specifications

Precision Grease B 52

Article No.: TF1410

Clock And Instrument Grease For Metals

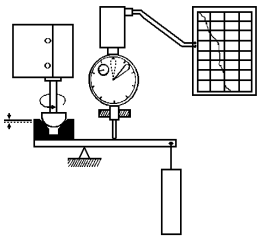
Laboratory Data:

Dynamic Viscosity (DIN)		
Cone C60 1° D = 1000/s	**Temperature**	**η (mPa·s)**
 system cone-on-plate	25 °C [77°F]	590 - 730
	Viscosity-Index (ISO)	110 (base oil)
Flow Behavior		intrinsically viscous
Viscosity-Temperature-Behavior		good

Consistency	semi-fluid
Color	yellow to light brown, transparent
Dropping Point	170°C [338°F]
Oil Separation (FTMS) 48 hrs/85°C [185°F]	19 %
Permanent Low Temperature Base Oil (72 hrs fluid)	-20°C [-4°F]
Application Temperature	-10°C to 80°C [14°F to 176°F]
Base Oil	mineral oils, stabilized with friction modifier
Viscosity Base Oil 20°C [68°F]	210 mm^2/s
Thickener	metallic soap + anorganic
Durability	good
Corrosion Resistance	brass: good steel: very good
Compatibility with Plastics	on request

Tribological Data:

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



Friction Behavior
dependent on sliding speed

v (mm/s)	**f**	friction coeffient f (0.1 / 0.2 / 0.3 / 0.4)
0	0.09	
20	0.06	
50	0.04	
200	0.08	
materials:	steel/brass, load 3N, 25°C [77°F]	
lubricant:	Precision Grease B 52	

Wear Behavior
comparison: dry and lubricated with Precision Grease B 52

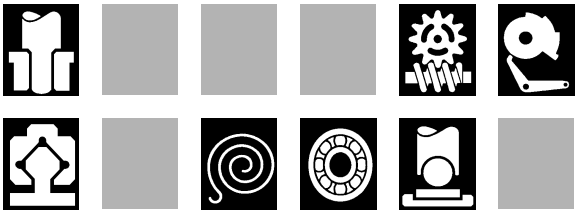
materials		wear (in mm) (0.01 / 0.03 / 0.1 / 0.3 / 1.0)
St/brass:	**B 52**	
	dry	
St/St:	**B 52**	
	dry	
test parameters:	load 30N, distance 10 km, 25°C [77°F], v = 28.1 mm/s	

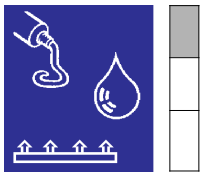
Comments:

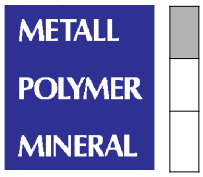
Metallic soap thickened grease based on mineral oils with an additional special anorganic thickener. Its semi-fluid consistency eases application. Because of its lubricating properties it can be used in highly loaded bearings.

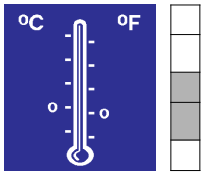
Application:

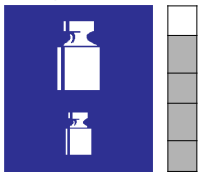
For metal/metal precision bearings (steel, non-ferrous metals, aluminum, etc.); e.g. sliding bearings in measuring instruments, clock movements, recording devices, synchronous motors and instruments.
For winder mechanisms, connecting pawls, ratchets, mainsprings and anchor pivots.

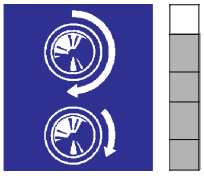


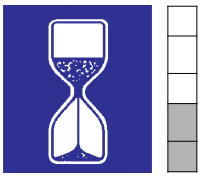
Product


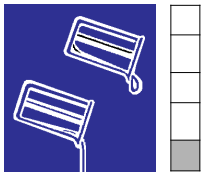
Bearing material


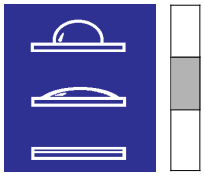
Application temperature


Bearing load


Sliding speed


Durability


Viscosity


Wetting


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