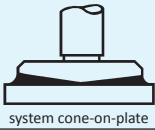


## Product Specifications

### Laboratory Data:

<b>Shear Viscosity (DIN 51810-1)</b>		
<b>cone CP25 1°</b> $\dot{\gamma} = 1000/s$	<b>Temperature</b>	<b><math>\eta</math> (mPa·s)</b>
 system cone-on-plate	25 °C [77 °F]	590 - 730
Viscosity-Index (ISO)		110 (base oil)
Flow Behaviour		slightly intrinsically viscous
Viscosity-Temperature-Behaviour		good

<b>Consistency</b>	fluid
<b>Color</b>	yellow to light brown, transparent
<b>Dropping Point</b>	170 °C [338 °F]
<b>Oil Separation (FTMS)</b> 48 hrs/85 °C [185 °F]	19 %
<b>Permanent Low Temperature Base Oil</b> 72 hrs fluid	-15 °C [+5 °F]
<b>Application Temperature</b>	-10 °C to +60°C [+14 °F to +140 °F]
<b>Base Oil</b>	mineral oils, stabilized with friction modifier
<b>Viscosity Base Oil</b> 20 °C [68 °F]	210 mm <sup>2</sup> /s
<b>Thickener</b>	metallic soap + anorganic
<b>Durability</b>	good
<b>Corrosion Resistance</b>	brass: good steel: very good
<b>Compatibility with Plastics</b>	on request

### 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.

P048d

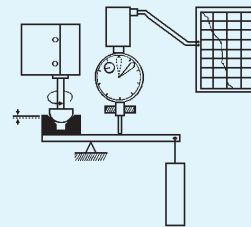
# Precision Grease B 52

Article No. TF1410

## Clock and Instrument Grease for Metals

### Tribological Data:

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



friction moment M  
1/2" sphere  
prism  
normal load  $F_N$

#### Friction Behaviour

dependent on sliding speed

v (mm/s)	f	friction coefficient 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 3 N, 25 °C [77 °F]  
lubricant: Precision Grease B 52

#### Wear Behaviour

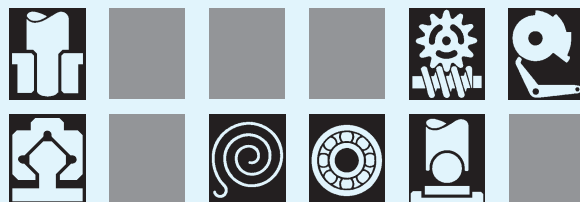
comparison: dry and lubricated with Precision grease B 52

materials	wear (in mm)				
	0.01	0.03	0.1	0.3	1.0
St/brass: TF1410 dry	█				
St/steel: TF1410 dry	█				

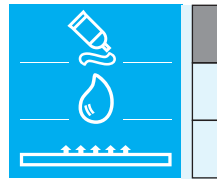
test parameters: load 30 N, distance 10 km, 25 °C [77 °F], v=28.1 mm/s

### Application:

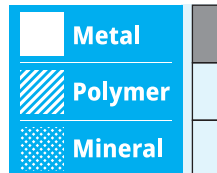
For metal/metal precision bearings (steel, non-ferrous metals, aluminum, etc.); e.g. sliding bearings in measuring instruments, clock movements, recording devices, synchronous motors and instruments. For winder mechanisms, connecting pawls, ratchets, mainsprings and anchor pivots.



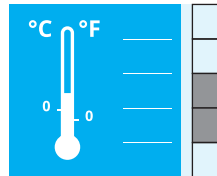
#### Product



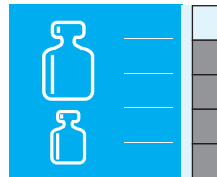
#### Bearing material



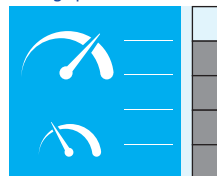
#### Application temperature



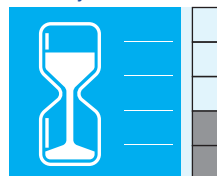
#### Bearing load



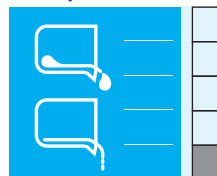
#### Sliding speed



#### Durability



#### Viscosity



#### Wetting

