

## Product Specifications

### Laboratory Data:

Penetration		
quarter cone	Unworked penetration	Worked penetration
	250 - 310 mm/10	250 - 310 mm/10
NLGI Class		2
Consistency		medium

<b>Color</b>	beige
<b>Dropping Point</b>	180 °C [356 °F]
<b>Oil Separation (FTMS)</b> 48 hrs/85 °C [185 °F]	5 %
<b>Permanent Low Temperature Base Oil</b> 72 hrs fluid	-20 °C [-4 °F]
<b>Application Temperature</b>	-10 °C to +60 °C [+14 °F to +140 °F]
<b>Base Oil</b>	mineral oils, PAOs, esters, stabilized
<b>Viscosity Base Oil</b> 20 °C [68 °F]	140 mm <sup>2</sup> /s
<b>Thickener</b>	metallic soap
<b>Durability</b>	good
<b>Corrosion Resistance</b>	brass: satisfactory steel: very good

### Comments:

Metallic soap thickened grease based on mineral and ester oils with polyalpha-olefines. An ageing stabilization according to the most modern chemical procedures guarantees specifications required in the field of horological and instruments technology.

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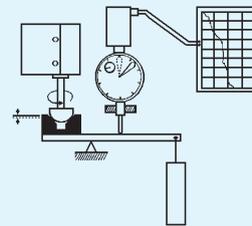
# Precision Grease R 27

Article No. TF1210

Clock and Instrument Grease

### 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	0.07	■			
20	0.07	■			
50	0.05	■			
200	0.05	■			

materials: steel/brass, load 3 N, 25 °C [77 °F]  
lubricant: Precision Grease R 27

#### Wear Behaviour

comparison: dry and lubricated with Precision Grease R 27

materials	wear (in mm)				
	0.01	0.03	0.1	0.3	1.0
St/brass: TF1210 dry	■				
St/steel: TF1210 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 windings, barrel arbors, anchor pivots, teeth of balance wheels, mainsprings and rotor bearings.



#### Product



#### Bearing material

METAL  
POLYMER  
MINERAL

#### Application temperature



#### Bearing load



#### Sliding speed



#### Durability



#### Viscosity



#### Wetting

