

# Product Specifications

## Laboratory Data:

<b>Unworked Penetration</b>	295 - 355 mm/10
<b>Worked Penetration</b>	295 - 355 mm/10
<b>NLGI Class</b>	1
<b>Consistency</b>	soft
<b>Color</b>	yellow, translucent
<b>Dropping Point</b>	180°C [-356°F]
<b>Oil Separation (FTMS)</b>	-15 %
48 hrs/85°C [185°F]	
<b>Permanent Low Temperature</b>	-20°C
<b>Base Oil (72 hrs fluid)</b>	[-4°F]
<b>Application Temperature</b>	-15°C to 80°C
	[5°F to 176°F]
<b>Base Oil</b>	synthetic oil on ester base (no silicons)
<b>Viscosity Base Oil</b>	150 mm <sup>2</sup> /s
20°C [68°F]	
<b>Thickener</b>	metallic soap
<b>Drop Stability</b>	very good
<b>Durability</b>	very good
<b>Corrosion Resistance</b>	brass: very good steel: very good
<b>Compatibility with Plastics</b>	on request

## Comments:

Fluid Grease Clock 859-8 has been designed especially for lubricating precision bearings out of metallic materials. It contains a synthetic base oil with high load carrying capacity and superb aging stability. A special metal soap thickener gives the grease a soft consistency with a defined yield point, which reduces effects of creeping lubricants out of the bearings. Fluid Grease Clock 859-8 does not contain any silicons.

Compatibility tests are necessary if used with plastics!

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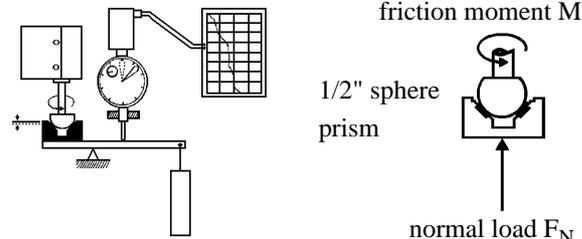
# Fluid Grease Clock 859-8

Article No.: TF1800

Precision Grease for Metal Bearings

## Tribological Data:

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



Friction Behavior		friction coefficient f			
dependent on sliding speed		0.1	0.2	0.3	0.4
v (mm/s)	f				
0	0.11	[Bar chart showing f=0.11 for v=0]			
20	0.04	[Bar chart showing f=0.04 for v=20]			
50	0.01	[Bar chart showing f=0.01 for v=50]			
200	0.01	[Bar chart showing f=0.01 for v=200]			

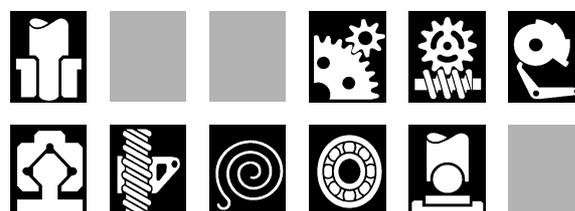
materials: steel/brass, load 3N, 25°C [77°F]  
lubricant: Flow Grease Clock 859-8

Wear Behavior		wear (in mm)				
comparison: dry and lubricated with Flow Grease Clock 859-8		0.01	0.03	0.1	0.3	1.0
St/brass: TF1800	dry	[Bar chart showing high wear for dry St/brass]				
St/brass: TF1800	dry	[Bar chart showing high wear for dry St/brass]				
St/steel: TF1800	dry	[Bar chart showing high wear for dry St/steel]				
St/steel: TF1800	dry	[Bar chart showing high wear for dry St/steel]				

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

## Application:

For precision bearings out of metals in clock movements, counters, alarm clocks, helical gear trains, measuring devices, precision gears, plotters, printers, ball bearings, brass/steel bearings from 0.1 to 10 mm diameter (0.004 to 3/8 inches).



Product

Bearing material

Application temperature

Bearing load

Sliding speed

Durability

Viscosity

Wetting