


Product Specifications

Laboratory Data:

Penetration		
quarter cone	Unworked penetration	Worked penetration
	290 - 360 mm/10	290 - 360 mm/10
NLGI Class	1	
Consistency	soft	

Color	yellow/white
Oil Separation (FTMS) 48 hrs/85 °C [185 °F]	3 %
Permanent Low Temperature Base Oil 72 hrs fluid	-20 °C [-4 °F]
Application Temperature	-10 °C to +100 °C [+14 °F to +212 °F]
Base Oil	arylpolyalcanoate
Viscosity Base Oil 20 °C [68 °F]	150 mm ² /s
Thickener	micro PTFE powder, no metallic soaps
Durability	very good
Drop Stability	good
Corrosion Resistance	brass: good steel: good
Compatibility with Plastics	
compatible	PA66, PBT, POM
satisfactory	POM (CL)
incompatible	ABS, ASA, PC, PPO, SB

Comments:

Precision Grease Clock 859 PTFE has a fully synthetic base oil and is thickened with micro PTFE powder, which guarantees good emergency running properties. Friction and wear values in classical steel and brass bearings are outstandingly low. Special stabilizers protect the grease from negative influences of pinion or free cutting steel. Precision Grease Clock 859 PTFE is free of silicone. If applied with plastics please test their compatibility or request results.

P193d

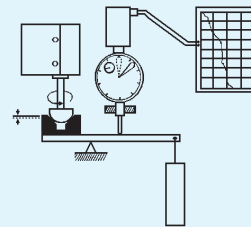
Precision Grease Clock 859 PTFE

Article No. TF2510

Precision Grease for Metal Bearings

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	0.11	[Bar chart showing high friction]			
20	0.04	[Bar chart showing low friction]			
50	0.03	[Bar chart showing low friction]			
200	0.03	[Bar chart showing low friction]			

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

Wear Behaviour

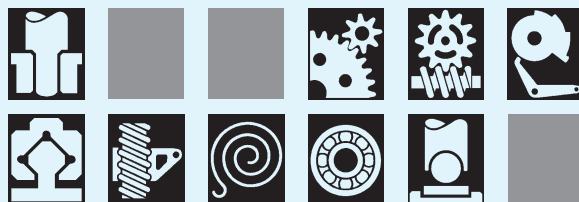
comparison: dry and lubricated with Precision Grease Clock 859 PTFE

materials	wear (in mm)				
	0.01	0.03	0.1	0.3	1.0
St/brass: TF2510 dry	[Bar chart showing high wear]				
St/POM: TF2510 dry	[Bar chart showing low wear]				

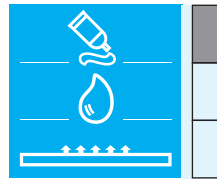
test parameters: load 30 N, distance 10 km, 25 °C [77 °F], v=28.1 mm/s

Application:

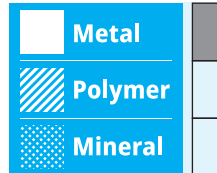
For open bearings in clock movements, counters, alarm clocks, helical gear trains, measuring devices, precision gears, plotters, printers, ball bearings. For all brass/steel bearings from 0.1 to 10 mm diameter (0.004 to 3/8 inches).



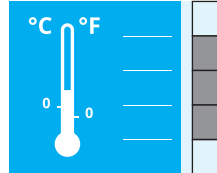
Product



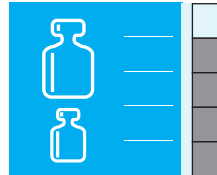
Bearing material



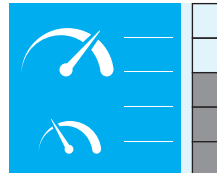
Application temperature



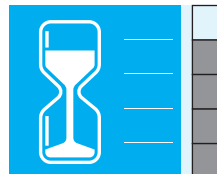
Bearing load



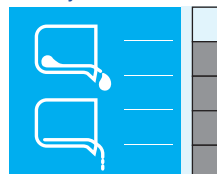
Sliding speed



Durability



Viscosity



Wetting

