Dr. Tillwich GmbH
Werner Stehr

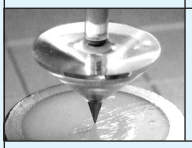
Flow Grease Clock 859-8

Article No. TF1800

Precision Grease for Metal Bearings

Product Specifications

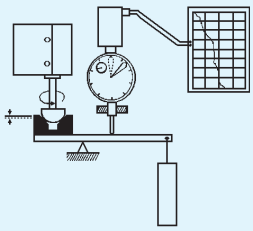
Laboratory Data:

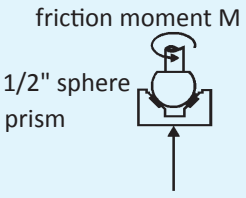
Penetration		
quarter cone	**Unworked penetration**	**Worked penetration**
	295 - 355 mm/10	295 - 355 mm/10
NLGI Class		1
Consistency		soft

Color	yellow, translucent
Dropping Point	180 °C [356 °F]
Oil Separation (FTMS) 48 hrs/85 °C [185 °F]	15 %
Permanent Low Temperature Base Oil 72 hrs fluid	-15 °C [+5 °F]
Application Temperature	-10 °C to +80°C [+14 °F to +176 °F]
Base Oil	synthetic oil on ester base (no silicones)
Viscosity Base Oil 20 °C [68 °F]	150 mm²/s
Thickener	metallic soap
Durability	very good
Drop Stability	very good
Corrosion Resistance	brass: very good steel: very good
Compatibility with Plastics	on request

Tribological Data:

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





Friction Behaviour
dependent on sliding speed

v (mm/s)	f	friction coefficient f (0.1 0.2 0.3 0.4)
0	0.05	
20	0.03	
50	0.01	
200	0.02	
materials:	steel/brass, load 3 N, 25 °C [77 °F]	
lubricant:	Flow Grease Clock 859-8	

Wear Behaviour
comparison: dry and lubricated with Flow Grease Clock 859-8

materials	wear (in mm) (0.01 0.03 0.1 0.3 1.0)
St/brass: TF1800	
dry	
St/steel: TF1800	
dry	
test parameters:	load 30 N, distance 10 km, 25 °C [77 °F], v=28.1 mm/s

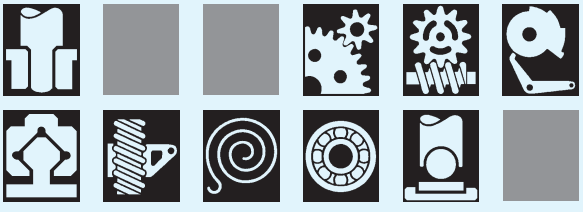
Comments:

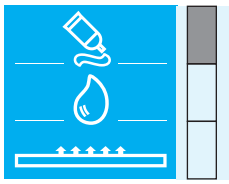
Flow Grease Clock 859-8 has been designed especially for lubricating precision bearings out of metallic materials. It contains a synthetic base oil with high load carrying capacity and superb ageing stability. A special metal soap thickener gives the grease a soft consistency with a defined yield point,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

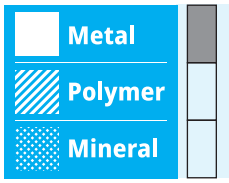
Compatibility tests are necessary if used with plastics!

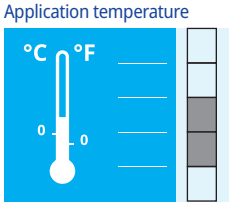
Application:

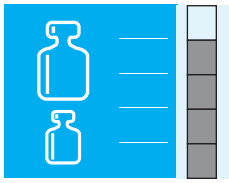
For precision bearings out of metals in clock movements, counters, alarm clocks, helical gear trains, measuring devices, precision gears, plotters, printers, ball bearings, brass/steel bearings from 0.1 to 10 mm diameter (0.004 to 3/8 inches).

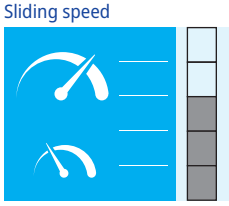


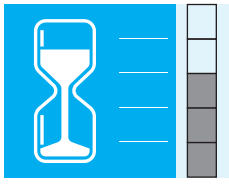
Product


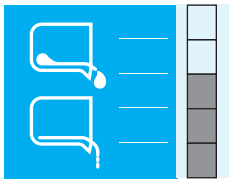
Bearing material


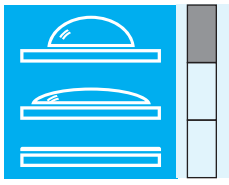
Application temperature


Bearing load


Sliding speed


Durability


Viscosity


Wetting


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