



# FLUOROCARBON GEL 813-1

**The SmartGrease Company®**

A soft, PTFE thickened, medium viscosity, halogenated silicone grease intended for potentiometers, electrical contacts and precision instruments operating over a wide temperature range. Benefits include excellent low temperature operating characteristics.

Lubricant Properties		Typical Value	Test Method
Recommended Service Range (°C)		-70 to 200	
Thickener		PTFE	
<b>Base Oil (Nyosil M-25)</b>	Type	Chlorophenylmethyl Silicone	
	Kinematic Viscosity	100°C      19 cSt	ASTM D-445
		40°C      53 cSt	ASTM D-445
		-40°C      864 cSt	ASTM D-445
	Viscosity Index	373	ASTM D-2270
	Flash Point	°C      314	ASTM D-92
Pour Point		°C      -73	ASTM D-97
Typical Properties of the Grease		Typical Value	Test Method
<b>Color, Appearance</b>		White	
<b>Penetration (1/10 mm)</b>	Unworked	316	ASTM D-217
	Worked	60 X	ASTM D-217
		10000 X	ASTM D-217
	NLGI Grade	1	ASTM D-217
<b>Density</b>		25°C      1.24 g/cm³	NYE CTM
<b>Oil Separation</b>	24 hour(s)	100°C      4.6 %	FTM 791, Method 321.2
<b>Evaporation</b>		100°C      0.1 %	NYE CTM
		150°C      3.3 %	NYE CTM
<b>Water Washout</b>		80°C      0.6 %	ASTM D-1264
<b>Copper Corrosion</b>	24 hour(s)	100°C      1B	ASTM D-4048
<b>Low Temp Torque</b>	Starting Torque	-54°C      236 g/cm	ASTM D-1478
	Running Torque	10 minute(s), -54°C      118 g/cm	ASTM D-1478
		60 minute(s), -54°C      118 g/cm	ASTM D-1478
<b>Oxidative Stability</b>	168 hour(s)	100°C      3.4 kPa	ASTM D-942
<b>Vapor Pressure</b>		25°C      2.5x10-9 Torr	NYE CTM
		50°C      1.8x10-8 Torr	NYE CTM
		75°C      1.9x10-7 Torr	NYE CTM
		100°C      3.8x10-7 Torr	NYE CTM

The typical properties shown on this product data sheet should not be used as a basis for preparing specifications. Refer to our product Material Safety Data Sheet for detailed safety information.  
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