

Fluorosint® 135

Excellent Machinability, Stability and Performance Value

Product Overview

- Quadrant's Fluorosint® product family is not the typical PTFE compound. Fluorosint® is well known for its strong ability to out perform where all other compounds fall short. May it be the continuous use temperatures up to 260 °C, improved deformation under load, lowest coefficient of friction or the low uniform coefficient of linear thermal expansion, Fluorosint® performs.
- Our newest Fluorosint® 135 offers high performance at an extremely competitive price position. A perfect blended material grade which provides extreme performance for seals, bearings and wear applications. The lowest coefficient of friction material along with low deformation provides superior performance over typical filled PTFE compounds.

Application Highlights

- Compressor, pump and valve wear parts
- Seals, bearings, thrust washers and seats
- Insulating blocks and fixtures in diagnostic equipment
- Compressor piston rings, rider bands & packing sets
- Lubricated or non-lube dry running applications
- Typical air, hydrogen, nitrogen, refrigerant gas service
- Service temperatures of 232 °C
- Increased part life and improved performance
- Applications in chemical processing, medical, aerospace, and food market

Key Benefits

Compared to other filled PTFE compounds

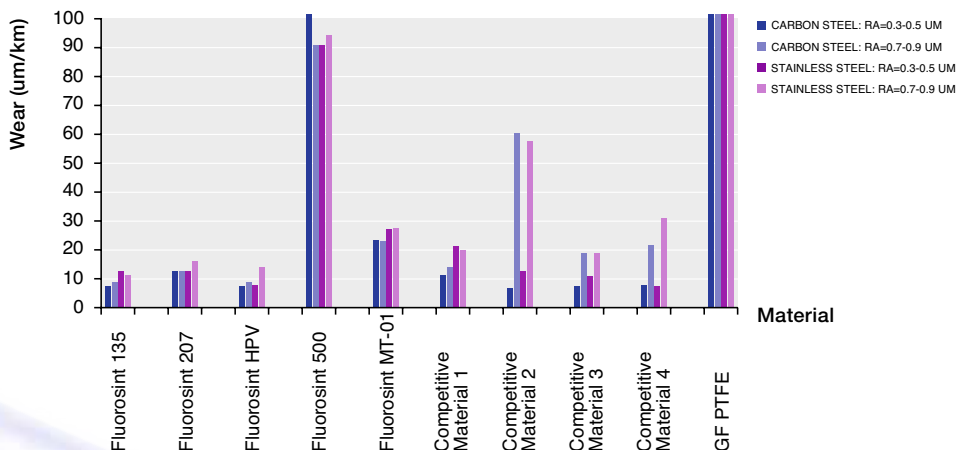
- Lowest wear rate
- Lowest COF
- Counter surface has little effect on performance
- Lowest CLTE
- Very low deformation
- Extremely chemically inert
- No excessive run in period

Wear rate at high temperature

Wear at 150 °C (0-28.5km / 300 °F (0-17.7 mi))

Plastic pin on rotating steel disk, speed = 0.33 m/s. , pressure = 3 mpa, pin diameter = 6mm

Plastic pin on rotating steel disk, speed = 65.0 ft/min, pressure = 435 psi, pin diameter = 0.236"



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Properties (mm/ °C)	Fluorosint® Product Family					Competitive Materials Popular Grades		
	135	207	500	HPV	MT-01	1	2	3
Density (g/cm ³)	1.91	2.3	2.32	2.06	2.27	2.25	1.95	2.25
Tensile Strength (MPa)	9	10.3	7.6	10	14.5	13.8	13.8	13.8
Tensile Elongation (%)	3	50	30	90	40	135	180	175
Hardness	R80/D74	R50/D65	R55/D70	R44/D64	R74/D75	D60	D60	D60
CLTE (m/m.K)	50×10 ⁻⁶	85×10 ⁻⁶	50×10 ⁻⁶	75×10 ⁻⁶	60×10 ⁻⁶	88×10 ⁻⁶	97×10 ⁻⁶	85×10 ⁻⁶
COF (thrust washer testing)	0.12	0.17	0.19	0.18	0.18	0.25	0.2	0.3
Limiting PV (MPa m/s)	.5	.28	.28	.7	.16	.35	.26	.35
K-Factor (wear factor) (thrust washer testing)	32	85	600	38	200		47	45
Deformation under Load	1.98%	5.00%	1.10%	3.20%	0.20%	3.0%	3.0%	4.0%
FDA Compliant	No	Yes	No	Yes	No	No	No	Yes

Advantage
 Strong Advantage

Data taken from product brochures

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