

Typical properties for filled PTFE compounds

Table 1

Filler	Description	Tensile Strength	Elongation	Specific Gravity	Bulk Density	Hardness	Deformation Under Load	Coefficient of Thermal Expansion	Coefficient of Friction Static	Coefficient of Friction Dynamic	Dielectric Strength	Wear Factor
		ASTM D4745	ASTM D4745	ASTM D4745	ASTM D4745	ASTM D2240	ASTM D621	ASTM D696	ASTM D1894	ASTM D1894	ASTM D149A	K x 10 ⁻¹⁰
		psi	%	g/cc	g/l	Shore D	%	In/in/°F x 10 ⁻⁵				In ³ -min/lb-ft-hr
None	Virgin PTFE	6000	350	2.15	400	58	7.9	6.8	0.09	0.07	1500	15,000
	PCI UNF LF pigmented	5000	340	2.16	--	58	7.3	6.5	0.07	0.06	--	--
Glass-filled PTFE	PCI 10 FG LF	4000	310	2.20	--	59	6.1	6.3	0.04	0.07	--	--
	PCI 15 FG LF	3400	290	2.23	350							
	PCI 15 FG FF	2700	250	2.23	780	60	4.1	5.7	0.09	0.05	430	7
	PCI 15 FG LF pigmented	3000	250	2.22	350							
	PCI 25 FG LF	2950	265	2.24	385							
	PCI 25 FG FF	2000	200	2.24	785							
	PCI 25 FG LF pigmented	2500	220	2.23	350							
Graphite-filled PTFE	PCI 10 GR FF	2800	220	2.16	730	--	5.8	6.8	0.05	0.07		44
	PCI 15 GR LF	3000	210	2.16	--	63	2.5	5.9	0.07	0.05	60	30
	PCI 15 GR FF	2000	160	2.16	695							
Bronze-filled PTFE	PCI 60 BZ LF	2500	175	3.95	--	67	2.3	4.3	0.13	0.07	--	5
	PCI 60 BZ FF	2450	105	3.91	1350							
Aromatic Polyester (Polymer) - filled PTFE	PCI 10 EK LF	3200	325	2.05	--	56	3.2	6.4	0.09	0.05	--	5
	PCI 10 EK LF	3200	325	2.05	--							
Bronze / Moly-filled PTFE	PCI 55 BZ 5 SM LF	2500	110	3.65	--	62	2.0	3.9	0.13	0.09	--	5
	PCI 55 BZ 5 SM FF	1885	65	3.50	1200							
Glass / Moly-filled PTFE	PCI 15 FG 5 M LF	3300	220	2.24	--	63	3.8	5.2	0.06	0.04	--	9
	PCI 15 FG 5 M FF	2600	190	2.24	785							
Carbon / Graphite-filled PTFE	PCI 25C/GR LF	2100	110	2.07	--	61	2.0	5.9	0.09	0.08	--	6
	PCI 25 C/GR FF	1900	90	2.08	700							
Proprietary	PCI Tuffsheet® LF	2100	150	2.04	275	64	--	--	--	0.21	--	54

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Table 2

Filler	Description	Tensile Strength	Elongation	Specific Gravity	Bulk Density	Hardness
		ASTM D4745	ASTM D4745	ASTM D4745	ASTM D4745	ASTM D2240
		psi	%	g/cc	g/l	Shore D
Test Method		Units				
Carbon-filled PTFE	PCI 10 C LF	3300	255	2.11	--	--
	PCI 25 C LF	2200	85	2.05	--	65
	PCI 30 C LF	1700	55	2.03	--	70
Graphite-filled PTFE	PCI 25 GR LF	1900	75	2.08	--	--
Bronze-filled PTFE	PCI 40 BZ LF	3800	260	3.10	--	60
	PCI 40 BZ FF	3160	215	3.10	1100	
Stainless Steel-filled PTFE	PCI 50 SS FF	2100	200	3.30	1100	--
Molybdenum Disulfide (MoS ₂)-filled PTFE	PCI 5 M LF	4300	280	2.22	--	--
Wollastonite-filled PTFE	PCI 15 Min LF	3800	325	2.23	--	60
	PCI 15 Min FF	2500	240	2.28	680	
Carbon Fiber-filled PTFE	PCI 10 CF LF	3800	280	2.08	--	--
	PCI 10 CF FF	2325	275	2.08	695	
	PCI 15 CF LF	3250	250	2.03	--	61
	PCI 15 CF FF	2580	220	2.02	700	
Aromatic Polyester (Polymer) - filled PTFE	PCI 15 EK FF	2400	245	1.99	730	--
	PCI 25 EK LF	1700	190	1.88	--	--
Polyimide (Polymer)-filled PTFE	PCI 10 PI LF	3250	250	2.02	--	59
	PCI 15 PI LF	2580	235	1.95	--	60
	PCI 20 PI LF	1450	140	1.88	--	63
Bronze / Moly-filled PTFE	PCI 40 BZ 5 M LF	3000	165	3.12	--	56
Glass / Graphite-filled PTFE	PCI 15 FG 5 GR LF	2700	240	2.18	--	56
	PCI 15 FG 5 GR FF	2500	225	2.18	750	
Glass / Moly-filled PTFE	PCI 21 FG 2 M LF	2700	225	2.25	--	60
Proprietary	PCI Bearing Comp 213	3400	270	2.22	350	63