



## Comparison of MIL-G-5514F with MIL-P-5514 Revisions C, D, and E

MIL-P-5514A & B are the original series specifications which are now obsolete for new design... Dimensionally MIL-P-5514A & B differ significantly from MIL-P-5514C, D & E and MIL-G-5514F.

Dash No.	Comments
-110, -112, -114, -116 and -337 thru -349	Cylinder bore and piston groove diameters of Rev. F are .001 less than those specified for Revisions C, D & E.
-327 thru -336	Cylinder bore and piston groove diameters of Rev. F are .002 less than those specified for Revisions C, D & E.
-325 and -326	Cylinder bore and piston groove diameters of Rev. F are .003 less than those specified for Revisions C, D & E.
-210 thru -247	Width (G) of one-back-up grooves of Rev. F is .010 greater than those specified for Revisions C, D & E.
-425 thru -460	Width (G) of one-back-up grooves of Rev. F is .035 greater than those specified for Revisions C, D & E.

# Material Properties

<b>Material Code</b>	<b>Description</b>	<b>Filler</b>	<b>Tensile Strength ASTM D-1457 (psi)</b>	<b>Elongation ASTM D-1457 (%)</b>	<b>Specific Gravity ASTM D-1457</b>
(000)	Virgin Teflon	None	3500	300	2.15
(010)	AMS 3651	None	1500	75	2.15
(050)	Tetralon <sup>®</sup> 510	Bronze/Other	2200	150	3.12
(052)	TFC-045	Bronze	2000	90	3.75
(053)	TF-619	Bronze/Moly	1800	80	3.60
(300)	Tetralon 720	Polymeric	2300	250	2.04
(430)	Tetralon	None	3500	300	2.15
(440)	Tetralon TFC-031	Glass	2800	250	2.20
(450)	Tetralon TFC-033	Glass	2200	150	2.22
(460)	TFC-086	Glass-Moly	2700	225	2.20
(470)	TFC-618	Glass-Moly	1600	30	2.65
(490)	TFC-082	Glass-Moly	2500	200	2.21
(500)	TFC-033	Glass	2200	150	2.22
(520)	TFC-031	Glass	2800	250	2.20
(530)	TFC-030	Glass	3000	275	2.17
(558)	TFC-025	Carbon-Graphite	1800	100	2.09
(570)	TFC-021	Graphite	2000	140	2.10
(572)	TFC-617	Glass-Graphite	2500	225	2.13
(591)	TFC-616	Moly	3000	250	2.17
(600)	TFC-108	Carbon-Graphite	2000	85	2.04
(611)	TFC-608	Carbon	1800	60	2.05

# Material Properties

# TECHNICAL DATA SECTION

Material Code	Description	Filler	Deformation Under Load ASTM D-621 (%)	Coefficient of Thermal Expansion ASTM D-696 in/in/°F x 10 <sup>-5</sup>	Hardness Shore D	Coefficient of Friction ASTM D-1894		Dielectric Strength ASTM D-149A (V/mil)	Wear Factor K x 10 <sup>-10</sup> in <sup>3</sup> -min lb-ft-hr
						Static	Dynamic		
(000)	Virgin Teflon	None	7.9	6.8	51	.09	.07	1500	15,000
(010)	AMS 3651	None	12.0	7.0	53	.09	.08	350	—
(050)	Tetralon <sup>®</sup> 510	Bronze/Other	3.0	6.3	56	.13	.08	—	3
(052)	TFC-045	Bronze	2.3	4.3	65	.13	.07	—	5
(053)	TF-619	Bronze/Moly	2.0	3.9	62	.13	.09	—	5
(300)	Tetralon 720	Polymeric	3.2	6.4	56	.09	.05	—	5
(430)	Tetralon	None	7.3	6.5	52-58	.07	.06	—	*
(440)	Tetralon TFC-031	Glass	4.1	5.7	58	.09	.05	430	6
(450)	Tetralon TFC-033	Glass	3.9	4.3	58	.12	.07	320	6
(460)	TFC-086	Glass-Moly	3.9	5.2	60	.10	.05	650	6
(470)	TFC-618	Glass-Moly	2.0	3.2	67	.15	.09	—	8
(490)	TFC-082	Glass-Moly	3.8	5.2	58	.06	.04	—	9
(500)	TFC-033	Glass	3.9	4.3	58	.12	.07	320	6
(520)	TFC-031	Glass	4.1	5.7	58	.09	.05	430	7
(530)	TFC-030	Glass	6.1	6.3	55	.04	.07	—	—
(558)	TFC-025	Carbon-Graphite	2.0	5.9	64	.09	.08	—	—
(570)	TFC-021	Graphite	2.5	5.9	58-60	.07	.05	—	—
(572)	TFC-617	Glass-Graphite	6.6	6.0	56	.09	.05	—	9
(591)	TFC-616	Moly	5.0	6.4	58	.17	.13	—	8
(600)	TFC-108	Carbon-Graphite	4.8	6.2	60	.08	.05	—	6
(611)	TFC-608	Carbon	4.6	4.8	62	.16	.13	—	10

Note: These data are shown for information and comparison, and should not be used for design purposes.