

金属材料 JIS・ASTM規格対照表

Metals JIS・ASTM Standard Comparison Table

材料区分 Metals	鑄造鋼 Castings		鍛造鋼 Forging	
	JIS	ASTM	JIS	ASTM
炭素鋼 Carbon steel	SCPH2	A216-WCB	SFVC 2A	A105
低合金鋼 Low-alloy steel	SCPH11	A217-WC1	SFVA F1	A182-F1
			SFVA F2	A182-F2
	SCPH21	A217-WC6	SFVA F11A SFVA F12	A182-F11 A182-F12
	SCPH32	A217-WC9	SFVA F22B	A182-F22
	SCPH61	A217-C5	SFVA F5B SFVA F5D	A182-F5 A182-F5a
		A217-C12	SFVA F9	A182-F9
ステンレス鋼 Stainless steel	SCS13A	A351-CF8		
			SUS F304	A182-F304
	SCS19A	A351-CF3		
			SUS F304H	A182-F304H
	SCS14A	A351-CF8M		
			SUS F316	A182-F316
	SCS16A	A351-CF3M		
			SUS F316H	A182-F316H
			SUS F304L	A182-F304L
			SUS F316L	A182-F316L
			SUS F321	A182-F321
			SUS F321H	A182-F321H
	SCS21	A351-CF8C	SUS F347	A182-F347
		SUS F347H	A182-F347H	
SCS17	A351-CH20			
SCS18A	A351-CK20	SUS F310	A182-F310	
低温用炭素鋼 Carbon steel for low temp.			SFL2	A350-LF2
	SCPL1	A352-LCB		
			SFL1	A350-LF1
低温用低合金鋼 Low-alloy steel for low temp.	SCPL21	A352-LC2		
	SCPL31	A352-LC3	SFL3	A350-LF3
	SCPL11	A352-LC1		

# KOSO Control Valve Specification

## 共通技術データ Technical Data

表1-1 本体材料の使用温度・圧力範囲（単位：MPaG）

Table 1-1 Body operating pressure-temperature range (MPaG)

温度 Temp. [ ° F ]	Class 900						Class 1500						Class 2500					
	SCPL1	SCPH2 A105 WCB	SCPH21 F11 WC6	SCPH32 F22 WC9	SCS13A F304 CF8	SCS14A F316 CF8M	SCPL1	SCPH2 A105 WCB	SCPH21 F11 WC6	SCPH32 F22 WC9	SCS13A F304 CF8	SCS14A F316 CF8M	SCPL1	SCPH2 A105 WCB	SCPH21 F11 WC6	SCPH32 F22 WC9	SCS13A F304 CF8	SCS14A F316 CF8M
- 196 ~ 38 [ - 320 ~ 100 ]					14.89	14.89					24.82	24.82					41.37	41.38
- 45 ~ 38 [ - 49 ~ 100 ]	14.36				14.89	14.89	23.95			24.82	24.82	39.91				41.37	41.38	
- 5 ~ 38 [ 23 ~ 100 ]	14.36	15.32	15.52	15.52	14.89	14.89	23.95	25.54	25.87	24.82	24.82	39.91	42.57	43.11	43.11	41.37	41.38	
50 [ 122 ]	14.20	15.03	15.34	15.36	14.35	14.44	23.66	25.04	25.60	23.93	24.06	39.44	41.74	42.63	42.68	39.88	40.11	
100 [ 212 ]	13.54	13.91	14.64	14.72	12.26	12.66	22.55	23.20	24.53	20.44	21.11	37.60	38.66	40.65	40.89	34.08	35.18	
150 [ 302 ]	13.19	13.58	13.91	14.00	10.90	11.56	21.98	22.62	23.33	18.18	19.26	36.64	37.70	38.65	38.88	30.29	32.10	
200 [ 392 ]	12.80	13.16	13.65	13.46	9.83	10.70	21.35	21.92	22.43	16.38	17.84	35.57	36.53	37.92	37.39	27.31	29.74	
250 [ 482 ]	12.18	12.53	13.34	13.27	9.16	10.03	20.30	20.87	22.12	15.27	16.70	33.83	34.79	37.07	36.87	25.46	27.83	
300 [ 572 ]	11.31	11.62	12.73	12.73	8.72	9.50	18.85	19.37	21.22	14.54	15.81	31.43	32.29	35.37	35.37	24.22	26.37	
350 [ 662 ]	10.79	11.10	12.08	12.08	8.43	9.13	17.98	18.48	20.13	14.04	15.22	29.98	30.81	33.54	33.54	23.39	25.39	
375 [ 707 ]		10.95	11.64	11.64	8.33	8.92		18.24	19.40	13.88	14.85		30.40	32.35	32.35	23.14	24.76	
400 [ 752 ]		10.35	10.99	10.99	8.24	8.73		17.26	18.30	13.73	14.57		28.76	30.50	30.50	22.90	24.27	
425 [ 797 ]		8.63	10.54	10.54	8.15	8.60		14.38	17.56	13.59	14.33		23.97	29.26	29.26	22.65	23.90	
450 [ 842 ]		6.01	10.14	10.14	8.06	8.43		10.03	16.90	13.43	14.05		16.70	28.18	28.18	22.40	23.41	
475 [ 887 ]		4.06	9.51	9.51	7.98	8.21		6.77	15.83	13.28	13.68		11.29	26.39	26.39	22.15	22.81	
500 [ 932 ]			8.34	8.34	7.82	8.05			13.90	13.04	13.41			23.17	23.17	21.73	22.37	
525 [ 977 ]			6.08	6.58	7.16	7.90			10.13	11.95	13.16			16.89	18.28	19.90	21.92	
550 [ 1022 ]			3.84	4.91	6.54	7.49			6.39	10.92	12.49			10.64	13.65	18.19	20.81	
575 [ 1067 ]			2.55	3.51	6.02	7.23			4.25	10.05	12.06			7.08	9.75	16.74	20.09	
600 [ 1112 ]			1.76	2.30	5.01	6.44			2.94	8.36	10.72			4.91	6.37	13.93	17.86	
625 [ 1157 ]					3.92	5.48				6.54	9.13					10.90	15.22	
650 [ 1202 ]					3.16	4.24				5.26	7.06					8.76	11.71	
675 [ 1247 ]					2.33	3.79				3.88	6.32					6.46	10.54	

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## 共通技術データ Technical Data

表1-2 本体材料の使用温度・圧力範囲（単位：MPaG）

Table 1-2 Body operating pressure-temperature range (MPaG)

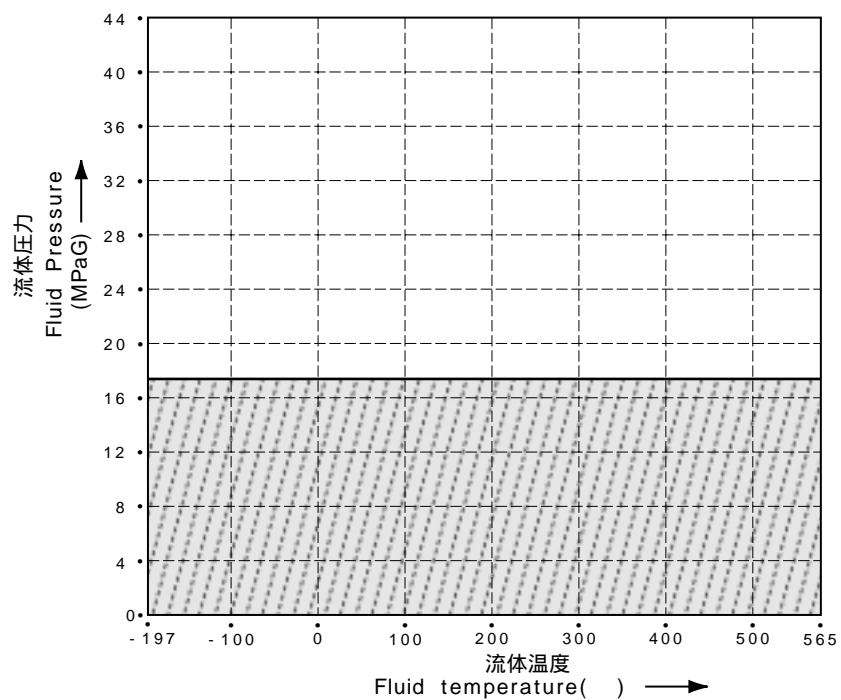
温度 Temp. [ ° F ]	Class 4500						Special Class 2500: Butt welding end ONLY						Special Class 4500: Butt welding end ONLY					
	SCPL1	SCPH2	SCPH21	SCPH32	SCS13A	SCS14A	SCPL1	SCPH2	SCPH21	SCPH32	SCS13A	SCS14A	SCPL1	SCPH2	SCPH21	SCPH32	SCS13A	SCS14A
- 196 ~ 38																		
[ - 320 ~ 100 ]																		
- 45 ~ 38																		
[ - 49 ~ 100 ]																		
- 29 ~ 38	71.83	76.61	791.00	77.60	74.46	74.47	39.92	43.11	43.11	43.11	43.10	43.11	732.40	791.20	791.20	791.20	790.80	790.90
[ 23 ~ 100 ]																		
50 [ 122 ]	70.99	75.13	782.30	76.83	71.77	72.21	39.92	43.11	43.11	41.99	41.99	42.26	732.40	791.20	791.20	770.30	775.30	
100 [ 212 ]	67.68	69.59	745.90	73.59	61.34	63.33	39.92	43.11	43.11	37.44	37.44	38.67	732.40	791.20	791.20	687.00	709.60	
150 [ 302 ]	65.95	67.87	709.30	69.97	54.51	57.77	39.92	43.11	43.11	33.68	33.68	34.95	732.40	791.20	791.20	618.10	641.30	
200 [ 392 ]	64.03	65.76	695.70	67.30	49.16	53.53	39.92	43.11	43.11	30.35	30.35	33.02	732.40	791.20	791.20	557.00	605.80	
250 [ 482 ]	60.90	62.60	680.20	66.36	45.82	50.10	39.92	43.11	42.52	28.39	28.39	30.95	732.40	791.20	780.10	521.00	567.90	
300 [ 572 ]	56.57	58.12	648.90	63.66	43.60	47.46	39.90	41.56	42.38	27.01	27.01	29.40	732.00	791.20	777.60	495.60	539.40	
350 [ 662 ]	53.96	55.46	615.40	60.37	42.10	45.65	38.90	40.12	42.32	26.06	26.06	28.22	713.60	751.90	776.50	478.10	517.70	
375 [ 707 ]		54.72	593.60	58.23	41.65	44.57		39.38	39.47	25.83	25.83	27.62		722.50	724.10	772.40	473.90	507.00
400 [ 752 ]		51.77	559.60	54.90	41.20	43.68		35.95	38.12	25.55	25.55	27.09		659.70	699.50	768.20	468.80	497.00
425 [ 797 ]		43.15	536.80	52.66	40.76	43.02		29.97	36.57	25.16	25.16	26.67		549.80	671.00	760.10	461.60	489.40
450 [ 842 ]			517.10	50.73	40.31	42.13		35.22	39.33	24.93	24.93	26.13			646.30	721.60	457.30	479.40
475 [ 887 ]			484.20	47.50	39.87	41.05		32.98	35.65	24.70	25.46	25.46			605.20	654.00	453.30	467.00
500 [ 932 ]			425.20	41.71	39.10	40.25		28.97	29.76	24.17	24.96	24.96			531.50	546.20	443.40	458.00
525 [ 977 ]			310.00	32.90	35.84	39.46		21.12	22.85	23.49	24.46	24.46			387.50	419.20	431.20	448.90
550 [ 1022 ]			195.30	24.54	32.74	37.45		13.30	17.05	22.73	24.46	24.46			244.10	312.90	417.00	448.90
575 [ 1067 ]			129.90	17.57	30.12	36.16		8.85	12.19	20.91	24.46	24.46			162.40	223.80	383.80	448.90
600 [ 1112 ]					25.07	32.16				17.41	22.34	22.34					319.60	409.80
625 [ 1157 ]					19.63	27.39				13.64	19.01	19.01					250.10	349.10
650 [ 1202 ]					15.78	21.19				10.97	14.72	14.72					201.10	270.00
675 [ 1247 ]					11.63	18.16				8.07	13.17	13.17					148.20	241.50

### グラフ1 バランスシール使用温度・圧力範囲 (MPaG)

Graph 1 Balance seal Operating pressure-temperature range (MPaG)

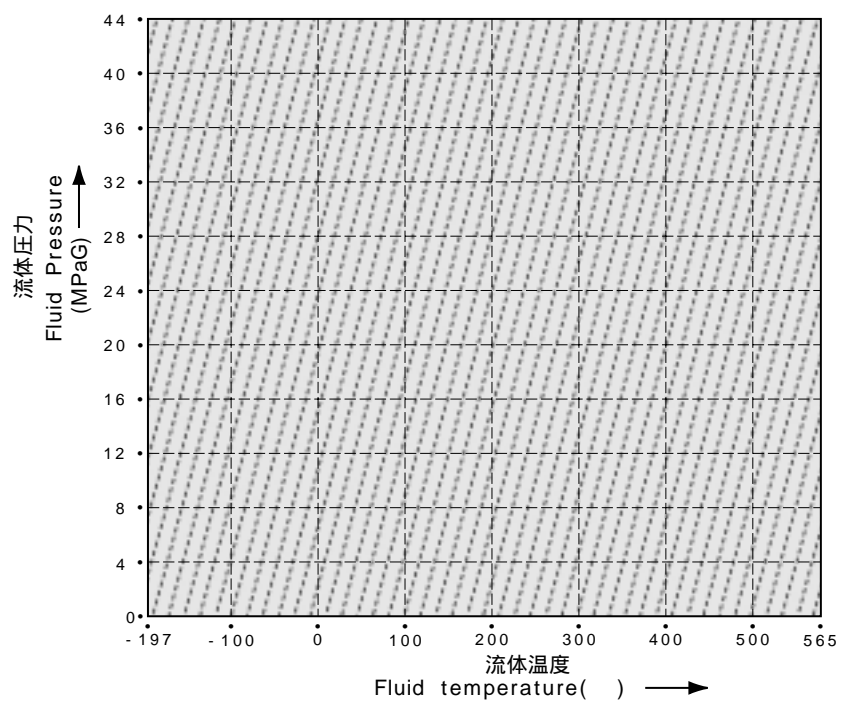
#### グラフ1-1 グラフォイル

Graph 1-1 Grafoil



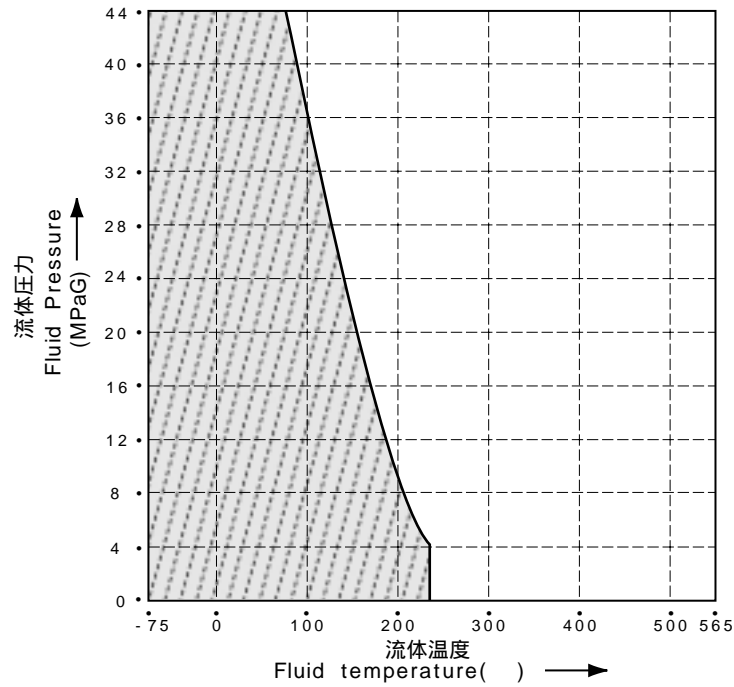
#### グラフ1-2 インコネル ピストンリング

Graph 1-2 Inconel Piston ring



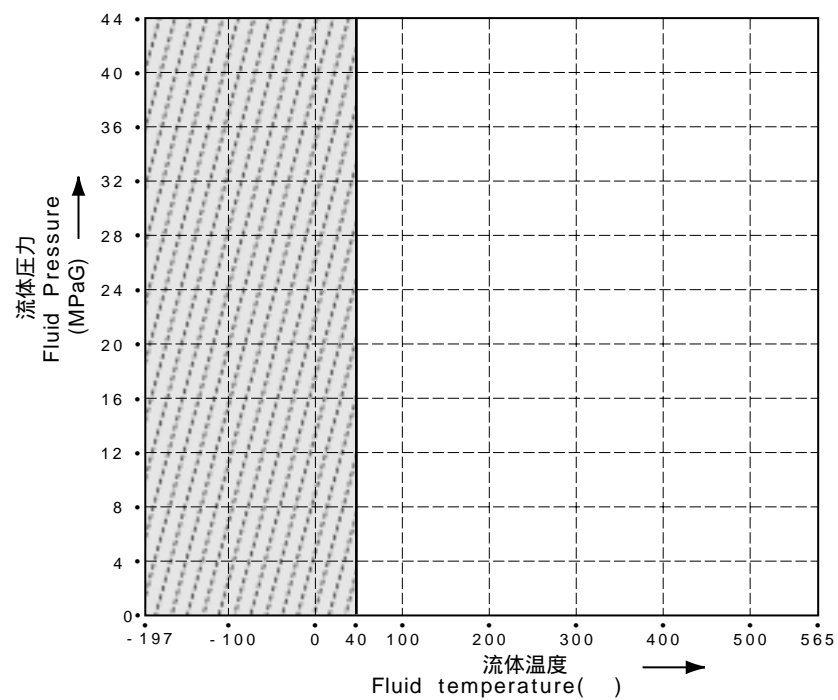
グラフ1-3 テフロン/SUS316

Graph 1-3 TFE/SUS316



グラフ1-4 フロロロイG/インコネル

Graph 1-4 Fluoroloy G/Inconel

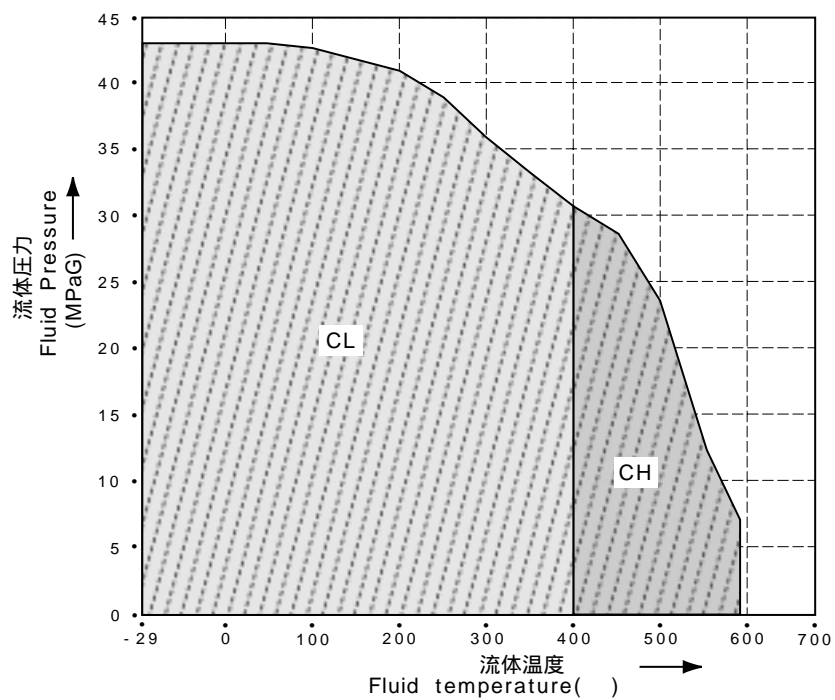


**グラフ2 グランドパッキン使用温度・圧力範囲 (MPaG)**

Graph 2 Gland Packing Operating pressure-temperature range (MPaG)

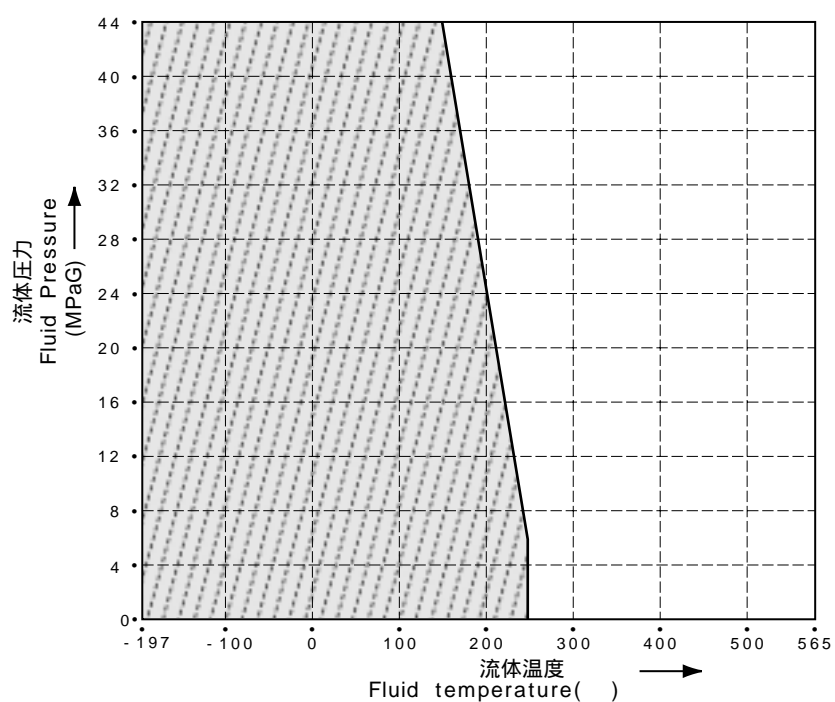
**グラフ2-1**

Graph 2-1 P6610CL (CH) + P6710CL (CH)



**グラフ2-2**

Graph 2-2 P6528 + P4519

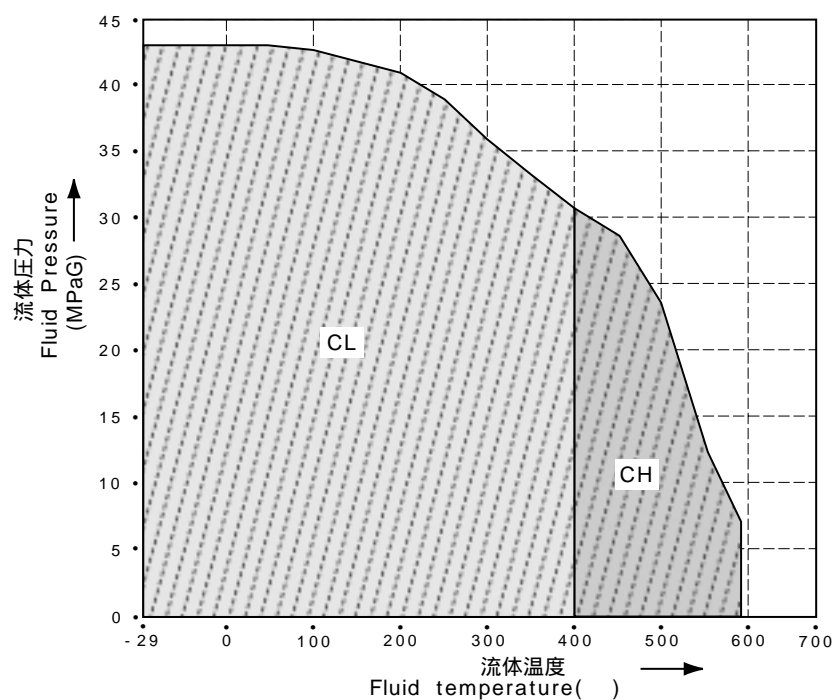


### グラフ3 ガasket使用温度・圧力範囲 (MPaG)

Graph 3 Gasket Operating pressure-temperature range (MPaG)

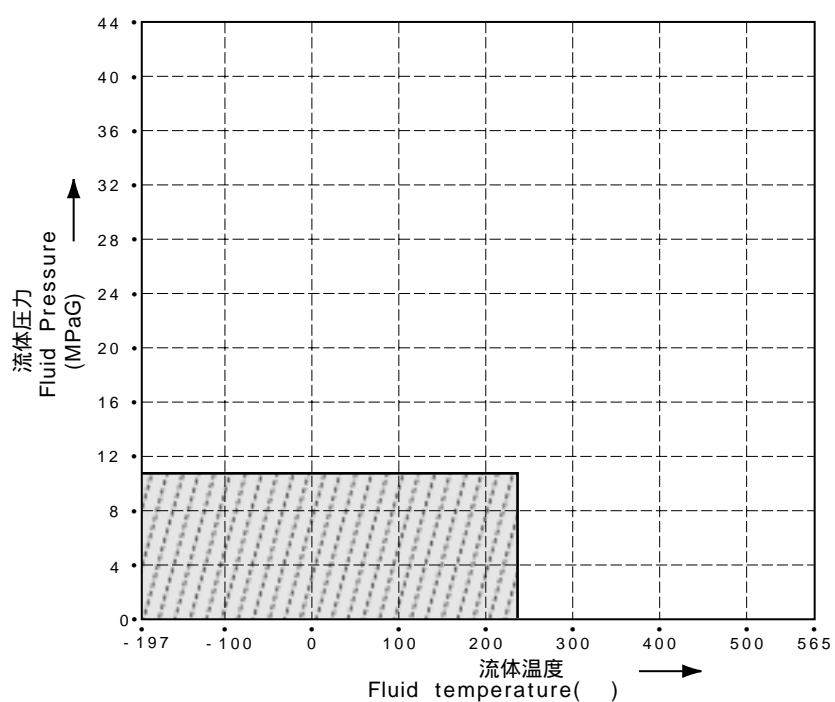
#### グラフ3-1 うず巻形ガスケット

Graph 3-1 Spiral wound T/#1806 GR



#### グラフ3-2 うず巻形ガスケット

Graph 3-2 Spiral wound T/#9090



#### グラフ4 ソフトシート(強化テフロン)使用温度・圧力範囲(MPaG)

Graph 4 Soft-seat (R. TFE) Operating pressure-temperature range (MPaG)

