

ELASTOMER COMPOUND PERFORMANCE PROPERTIES

EXCELLENT → GOOD → SUITABLE → POOR → UNACCEPTABLE

PROPERTY	NITRILE	EPDM	SILICONE	VITON	TEFLON
TENSILE STRENGTH 抗拉強度 (PSI)	2400 psi	2100 psi	1200 psi	1800 psi	4000 psi ASTM D4894-98a
ELECTRICAL PROPERTIES 耐電性能	SUITABLE 適	GOOD 良	GOOD 良	GOOD 良	GOOD 良
COMPRESSION SET 永久壓縮變形	GOOD 良	SUITABLE 適	SUITABLE 適	GOOD 良	GOOD 良
TEMPERATURE MAX. 最高耐溫度 (°C)	100 °C	100 °C	220 °C	250 °C	260 °C
WEATHER RESISTANCE 耐候性	POOR 差	EXCELLENT 優	EXCELLENT 優	EXCELLENT 優	EXCELLENT 優
ALKALI RESISTANCE 耐鹼	SUITABLE 適	GOOD 良	UNACCEPTABLE 劣	SUITABLE 適	EXCELLENT 優
OZONE RESISTANCE 耐臭氧	UNACCEPTABLE 劣	EXCELLENT 優	EXCELLENT 優	EXCELLENT 優	EXCELLENT 優
TEAR RESISTANCE 耐撕裂	GOOD 良	POOR 差	UNACCEPTABLE 劣	POOR 差	EXCELLENT 優 350% ASTM D4894-98a
ABRASION RESISTANCE 耐磨	GOOD 良	GOOD 良	UNACCEPTABLE 劣	POOR 差	EXCELLENT 優
ACID RESISTANCE 耐酸	SUITABLE 適	GOOD 良	POOR 差	GOOD 良	EXCELLENT 優
FLAME RESISTANCE 耐燃性	SUITABLE 適	SUITABLE 適	GOOD 良	EXCELLENT 優	EXCELLENT 優
PETROLEUM OIL RESISTANCE 耐石油	SUITABLE 適	UNACCEPTABLE 劣	POOR 差	EXCELLENT 優	EXCELLENT 優
VEGETABLE OIL RESISTANCE 耐植物油	EXCELLENT 優	GOOD 良	SUITABLE 適	EXCELLENT 優	EXCELLENT 優

CHEMICAL COMPOSITION TABLE 材質證明對照表

規範	材質	C	Si	Mn	P	S	Ni	Cr	Mo	Tensile (Mpa)	Yield (Mpa)	Elongation (%)	Hardness (HB)
ASTM A351 (鑄)	CF3	≤ 0.08	≤ 2.0	≤ 1.5	≤ 0.04	≤ 0.04	8-11	18-21	-	485	205	35	
	CF8	≤ 0.03	≤ 2.0	≤ 1.5	≤ 0.04	≤ 0.04	8-12	17-21	-	485	205	35	
	CF3M	≤ 0.08	≤ 1.5	≤ 1.5	≤ 0.04	≤ 0.04	9-12	18-21	2-3	485	205	30	
	CF8M	≤ 0.03	≤ 1.5	≤ 1.5	≤ 0.04	≤ 0.04	9-13	17-21	2-3	485	205	30	

規範	材質	C	Si	Mn	P	S	Ni	Cr	Mo	Tensile (Mpa)	Yield (Mpa)	Elongation (%)	Hardness (HB)
ASTM A182 (鍛)	304	≤ 0.08	≤ 1.0	≤ 2.0	≤ 0.045	≤ 0.03	8-11	18-20	-	515	205	30	
	304L	≤ 0.03	≤ 1.0	≤ 2.0	≤ 0.045	≤ 0.03	8-13	18-20	-	485	170	30	
	316	≤ 0.08	≤ 1.0	≤ 2.0	≤ 0.045	≤ 0.03	10-14	16-18	2-3	515	205	30	
	316L	≤ 0.03	≤ 1.0	≤ 2.0	≤ 0.045	≤ 0.03	10-15	16-18	2-3	485	170	30	

規範	材質	C	Si	Mn	P	S	Ni	Cr	Mo	Tensile (Mpa)	Yield (Mpa)	Elongation (%)	Hardness (HB)
ASTM A270 (管)	304	≤ 0.08	≤ 1.0	≤ 2.0	≤ 0.045	≤ 0.03	8-11	18-20	-	515	205	35	90
	304L	≤ 0.035	≤ 1.0	≤ 2.0	≤ 0.045	≤ 0.03	8-12	18-20	-	485	170	35	90
	316	≤ 0.08	≤ 1.0	≤ 2.0	≤ 0.045	≤ 0.03	10-14	16-18	2-3	515	205	35	90
	316L	≤ 0.035	≤ 1.0	≤ 2.0	≤ 0.045	≤ 0.03	10-14	16-18	2-3	485	170	35	90

規範	材質	C	Si	Mn	P	S	Ni	Cr	Mo	Tensile (Mpa)	Yield (Mpa)	Elongation (%)	Hardness (HB)
A240 (板)	304	≤ 0.08	≤ 0.75	≤ 2.0	≤ 0.045	≤ 0.03	8-10.5	18-20	-	515	205	40	92
	304L	≤ 0.03	≤ 0.75	≤ 2.0	≤ 0.045	≤ 0.03	8-12	18-20	-	485	170	40	92
	316	≤ 0.08	≤ 0.75	≤ 2.0	≤ 0.045	≤ 0.03	10-14	16-18	2-3	515	205	40	95
	316L	≤ 0.03	≤ 0.75	≤ 2.0	≤ 0.045	≤ 0.03	10-14	16-18	2-3	485	170	40	95

規範	材質	C	Si	Mn	P	S	Ni	Cr	Mo	Tensile (Mpa)	Yield (Mpa)	Elongation (%)	Hardness (HB)
A276 (棒)	304	≤ 0.08	≤ 1.0	≤ 2.0	≤ 0.045	≤ 0.03	8-11	18-20	-	515	205	40	
	304L	≤ 0.03	≤ 1.0	≤ 2.0	≤ 0.045	≤ 0.03	8-12	18-20	-	485	170	30	
	316	≤ 0.03	≤ 1.0	≤ 2.0	≤ 0.045	≤ 0.03	10-14	16-18	2-3	515	205	40	
	316L	≤ 0.03	≤ 1.0	≤ 2.0	≤ 0.045	≤ 0.03	10-14	16-18	2-3	485	170	30	

PRESSURE RATING (PSI)

WITH WING NUT TIGHTENED TO 25 INCH-LB OF TORQUE

	13MHH (13LAH)		13MHHM		13MHHS (3 PIECES)		13MHP		13LB	
	21° C /70° F	121° C /250° F	21° C /70° F	121° C /250° F	21° C /70° F	121° C /250° F	21° C /70° F	121° C /250° F	21° C /70° F	121° C /250° F
1/2",3/4"	1200	1000	1200	1000	*	*	*	*	1200	1000
1",1.1/2"	500	250	500	250	600	300	1500	1200	500	250
2"	450	250	450	250	550	275	1000	800	450	250
2.1/2"	400	200	400	200	450	225	1000	800	400	200
3"	350	150	350	150	350	160	1000	800	350	150
4"	200	125	200	125	350	150	1000	800	200	125
6"	150	75	150	75	*	*	300	200	150	75
8"	100	50	100	50	*	*	*	*	100	50
10"	100	50	*	*	*	*	*	*	*	*
12"	80	40	*	*	*	*	*	*	*	*

MEMO
