

# Temperature Range Guide

MATERIALS FOR REGULATORS INCLUDING SEATS AND O-RINGS



*Note:* Temperature details are provided as nominal values for guidance purposes only. No warranty is made, expressed or implied. Please contact the office for specific temperature requirements.

REGULATOR MATERIALS	GRADE (UNS)	MIN TEMPERATURE (°C)	MAX TEMPERATURE (°C)
Aluminium Bronze	C63200	-196	260
Aluminium Bronze Grade 1	C63000	-196	260
Aluminium T6511	AW6082	-196	200
Brass CZ121/CW614N	C38500	-196	204
Brass High Tensile CZ114/CW721R	C67500	-196	204
Elgiloy	R30003	-196	450
Hastelloy C22	N06022	-196	500
Hastelloy C276	N10276	-196	675
Inconel 625	N06625	-196	500
Inconel 718	N07718	-196	425
Inconel 825	N08825	-196	538
Inconel X750	N07750	-196	700
Monel 400	N04400	-196	475
Monel K500	N05500	-29	427
MP35N	R30035	-196	450
Stainless Steel 17-4 PH	S17400	-29	350
Stainless Steel 301	S30100	-29	370
Stainless Steel 316/316L	S31600/S31603	-196	538
Stainless Steel S42	S43100	-196	538
Stainless Steel Alloy 254 (6 Mo)	S31254	-29	400
Stainless Steel Duplex	S31803	-50	315
Stainless Steel Super Duplex	S32760	-50	315
	S32750	-50	315
Titanium Grade 2	R50400	-29	316
Titanium Grade 5	R56400	-29	316

O-RING MATERIAL	GRADE	MIN TEMPERATURE (°C)	MAX TEMPERATURE (°C)
EPDM	Ethalyne	-40	150
FFKM	Kalrez	-15	260
FPM/FKM	Viton	-20	200
HNBR	Hydrogenated NBR	-30	180
NBR N70	Nitrile Buna N	-30	120
NBR N75L	Nitrile Butadiene	-60	135

SEAT MATERIAL	GRADE	MIN TEMPERATURE (°C)	MAX TEMPERATURE (°C)
CERAMIC	Zirconia	38	800
PCTFE	Kel-F	-196	180
PEEK	450G	-50	204
PTFE	PTFE	-196	150
TECASINT	2011	-196	250



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