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Sandvik 6LR62

(Tube and pipe, seamless)

Sandvik 6LR62 is a molybdenum-alloyed austenitic stainless steel.

STANDARDS

- ASTM TP316, TP316H
- UNS S3160, S31609
- EN number 1.4401
- EN name X5CrNiMo17-12-2
- W.Nr. 1.4401
- AFNOR Z6ZND17-12

CHEMICAL COMPOSITION (NOMINAL) %

C	Si	Mn	P	S	Cr	Ni	Mo
			max.	max.			
0.05	0.6	1.5	0.040	0.015	17	11.5	2.1

MECHANICAL PROPERTIES

At 20°C (68°F)

Proof strength		Tensile strength		Elong.
$R_{p0.2}$ [a]		R_m		A [b]
MPa	ksi	MPa	ksi	%
min	min			min
205	30	515-790	75-115	45

1 MPa = 1 N/mm^2
a) $R_{p0.2}$ and $R_{p1.0}$ correspond to 0.2% offset and 1.0% offset yield strength, respectively.
b) Based on $L_0 = 5.65 \sqrt{S_0}$ where L_0 is the original gauge length and S_0 the original cross-section area.

At high temperatures

METRIC UNITS

Temperature °C	Proof strength $R_{p0.2}$ MPa min.
50	196
100	175
150	158
200	145
250	135
300	127
350	120
400	115
450	112
500	110
550	108

IMPERIAL UNITS

Temperature °F	Proof strength $R_{p0.2}$ ksi min.
200	26
400	21
600	18
800	16
1000	16

CREEP STRENGTH

Temperature		Creep-rupture strength			
°C	°F	10 000h		100 000h	
		MPa approx.	ksi approx.	MPa approx.	ksi approx.
550	1020	255	37.0	177	25.7
575	1065	214	31.0	137	19.9
600	1110	172	24.9	108	15.7
625	1155	137	19.9	86	12.5
650	1200	108	15.7	64	9.3
675	1245	83	12.0	46	6.7
700	1290	64	9.3	33	4.8
725	1335	49	7.1	25	3.9
750	1380	37	5.4	18	2.6

DISCLAIMER:
Recommendations are for guidance only, and the suitability of a material for a specific application can be confirmed only when we know the actual service conditions. Continuous development may necessitate changes in technical data without notice. This

datasheet is only valid for Sandvik materials.