

MECHANICAL PROPERTIES OF TUBING

Mechanical Properties-Stainless Steel* (normal diameter and wall)

Alloy	Temper	Tensile Strength ksi	Yield Strength ksi	Min. Elong. In 2 inches	Rockwell Hardness
304	1	100 Max	30 Min.	35	B90 Max
	1/8 Hard	105-140	75-110	20	-
	2	125-150	85-125	15	C30 Max
	3	150 Min.	115-160	7	C40 Max
304L	1	100 Max	25 Min.	35	B90 Max
	1/8 Hard	105-140	75-110	20	-
	2	110-140	75-110	15	C25 Max
	3	140 Min.	110-150	7	C38 Max
310	1	100 Max	35 Min.	35	B95 Max
	2	115-135	70-115	15	C26 Max
	3	145 Min.	110-160	5	C38 Max
316	1	100 Max	30 Min.	35	B95 Max
	2	115-135	70-110	15	C26 Max
	3	145 Min.	105-150	6	C38 Max
316L	1	100 Max	25 Min.	35	B95 Max
	2	115-135	70-110	15	C26 Max
	3	145 Min.	105-150	6	C38 Max
321	1	105 Max	30 Min.	35	B92 Max
	2	110-135	80-115	15	C26 Max
	3	140 Min.	125-160	6	C38 Max
347	1	105 Max	30 Min.	35	B92 Max
	2	110-135	80-115	12	C26 Max
	3	140 Min.	125-160	6	C38 Max

Mechanical Properties-Nickel & Nickel Base Alloys** (normal diameter and wall)

Alloy	Temper	Tensile Strength ksi	Yield Strength ksi	Min. Elong. In 2 inches	Rockwell Hardness
Alloy 400	1	85 Max	28 Min.	32	B80 Max
	2	90-105	55-80	12	B97 Max
	3	110 Min.	90-120	3	C27 Max
Alloy 500	1	110 Max	40 Min.	28	B95 Max
	2	110-130	65-95	10	C23 Max
	3	130 Min.	90-110	4	C26 Max
Alloy 625	1	120 Min	60 Min	30	-
Alloy 825	1	85-115	35 Max	30	B90 Max
Alloy C22	1	100 Min	41 Min	40	-
Alloy C276	1	100 Min	45 Min	45	-

Note:

Temper - #1 Annealed; #2 Half Hard; #3 Full Hard

*Properties shown above are for sizes larger than .125" and heavier than .015" wall.

**Properties shown are for larger than .188" O.D. heavier than .020" wall.

In cases of dispute-Tensile strength will be considered referee.