



A276/A276M – 24a

TABLE 2 Continued

UNS or Type	Condition	Finish	Diameter or Thickness, in. [mm]	Tensile Strength, min		Yield Strength, ^A min		Elonga- tion in 2 in. [50 mm] ^B or 4D min %	Reduc- tion of Area, ^{C, D} min, %	Brinell Hard- ness, HBW unless otherwise indicated, ^E max
				ksi	MPa	ksi	MPa			
S32760	A	hot-finished or cold-finished	all	109	750	80	550	25	...	310
S32760	S	cold-finished	all	125	860	105	720	16	...	335
S82441	A	hot-finished or cold-finished	Under 7/16 [11 mm] 7/16 and over [11 mm]	107 99	740 680	78 70	540 480	25 25	...	290 290
Ferritic Grades										
405 ^H	A	hot-finished	all	...	...	...	...	...	...	207
		cold-finished	all	...	...	...	...	...	...	217
429	A	hot-finished	all	70	480	40	275	20	45	...
		cold-finished	all	70	480	40	275	16	45	...
430	A	hot-finished or cold-finished	all	60	415	30	207	20	45	...
S40976	A	hot-finished or cold-finished	all	60	415	20	140	20	45	244
S44400	A	hot-finished	all	60	415	45	310	20	45	217
		cold-finished	all	60	415	45	310	16	45	217
446, XM-27	A	hot-finished	all	65	450	40	275	20	45	219
		cold-finished	all	65	450	40	275	16	45	219
S44700	A	hot-finished	all	70	480	55	380	20	40	...
		cold-finished	all	75	520	60	415	15	30	...
S44800	A	hot-finished	all	70	480	55	380	20	40	...
		cold-finished	all	75	520	60	415	15	30	...
Martensitic Grades										
403, 410	A	hot-finished	all	70	480	40	275	20	45	...
		cold-finished	all	70	480	40	275	16	45	...
403, 410	T	hot-finished	all	100	690	80	550	15	45	...
		cold-finished	all	100	690	80	550	12	40	...
XM-30	T	hot-finished	all	125	860	100	690	13	45	302
		cold-finished	all	125	860	100	690	12	35	...
403, 410	H	hot-finished	all	120	830	90	620	12	40	...
		cold-finished	all (rounds only)	120	830	90	620	12	40	...
XM-30	A	hot-finished	all	70	480	40	275	13	45	235
		cold-finished	all	70	480	40	275	12	35	...
414	A	hot-finished or cold-finished	all	...	...	...	...	...	...	298
414	T	hot-finished or cold-finished	all	115	790	90	620	15	45	...
S41425	T	hot-finished	all	120	825	95	655	15	45	321
S41500	T	hot-finished or cold-finished	all	115	795	90	620	15	45	295
420	A	hot-finished	all	...	...	...	...	...	...	241
		cold-finished	all	...	...	...	...	...	...	255
S42010	A	hot-finished	all	...	...	...	...	...	...	235
		cold-finished	all	...	...	...	...	...	...	255
431	A	hot-finished or cold-finished	all	...	...	...	...	...	...	285
440A, 440B, and 440C	A	hot-finished	all	...	...	...	...	...	...	269
		cold-finished	all	...	...	...	...	...	...	285
S44026	A	hot-finished	all	...	...	...	...	...	...	269
		cold-finished	all	...	...	...	...	...	...	300

^A Yield strength shall be determined by the 0.2 % offset method in accordance with Test Methods and Definitions A370 or Test Methods A1058. An alternative method of determining yield strength may be used based on a total extension under load of 0.5 %.

^B For some specific products, it may not be practicable to use a 2 in. or 50 mm gage length. The use of sub-size test specimens, when necessary, is permissible in accordance with Test Methods and Definitions A370 or Test Methods A1058.

^C Reduction of area does not apply on flat bars 3/16 in. [4.76 mm] and under in thickness as this determination is not generally made in this product size.

^D The material shall be capable of meeting the required reduction of area where listed, but actual measurement and reporting of the reduction of area are not required unless specified in the purchase order.

^E Or equivalent Rockwell hardness (HRB or HRC).

^F For extruded shapes of all Cr-Ni grades of Condition A, the yield strength shall be 25 ksi [170 MPa] min and tensile strength shall be 70 ksi [480 MPa] min.

^G For shapes having section thickness of 1/2 in. [12.5 mm] or less, 30 % min. elongation is acceptable.

^H Material shall be capable of being heat treated to a maximum Brinell hardness of 250 HBW when oil quenched from 1750 °F [950 °C].

^I Material testing location shall be 1 in. [25.4 mm] from OD.