

Errata  
 Record #23-273  
 November 7, 2023  
 Correction from Record #20-299

**Table U (Cont'd)**  
**Tensile Strength Values,  $S_u$ , for Ferrous and Nonferrous Materials**

Line No.	Nominal Composition	Product Form	Spec. No.	Type/Grade	Alloy Desig./UNS No.	Class/Condition/ Temper	Size/Thickness, in.	Min. Tensile Strength, ksi
<b>Nonferrous Materials (Cont'd)</b>								
1	99.2Zr	Plate, sheet, strip	SB-551	...	R60702	Annealed	...	55
2	99.2Zr	Smls. fittings	SB-653	PZ-2	R60702	Annealed	...	55
3	99.2Zr	Wld. fittings	SB-653	PZ-2W	R60702	Annealed	...	55
4	99.2Zr	Smls. & wld. pipe	SB-658	...	R60702	Annealed	...	55
(23) 5	95.5Zr + 2.5Nb	Forgings	SB-493	...	R60705	Annealed	...	70
(23) 6	95.5Zr + 2.5Nb	Smls. & wld. tube	SB-523	...	R60705	Annealed	...	80
(23) 7	95.5Zr + 2.5Nb	Bar, wire	SB-550	...	R60705	Annealed	...	80
(23) 8	95.5Zr + 2.5Nb	Plate, sheet, strip	SB-551	...	R60705	Annealed	...	80
(23) 9	95.5Zr + 2.5Nb	Smls. fittings	SB-653	PZ-5	R60705	Annealed	...	80
(23) 10	95.5Zr + 2.5Nb	Wld. fittings	SB-653	PZ-5W	R60705	Annealed	...	80
(23) 11	95.5Zr + 2.5Nb	Smls. & wld. pipe	SB-658	...	R60705	Annealed	...	80
	99.2Zr	Castings	SB-752	...	R61702	...	...	55
	95.5Zr + 2.5Nb	Castings	SB-752	...	R61705	...	...	70

**Table U (Cont'd)**  
**Tensile Strength Values,  $S_u$ , for Ferrous and Nonferrous Materials**

Tensile Strength, ksi (Multiply by 1000 to Obtain psi), for Metal Temperature, °F, Not Exceeding														
Line No.	100	200	300	400	500	600	650	700	750	800	850	900	950	1000
	<b>Nonferrous Materials (Cont'd)</b>													
1	55.0	47.9	39.0	31.9	26.6	23.1	21.8	20.8	19.9	19.2	...	...	...	...
2	55.0	47.9	39.0	31.9	26.6	23.1	21.8	20.8	19.9	19.2	...	...	...	...
3	55.0	47.9	39.0	31.9	26.6	23.1	21.8	20.8	19.9	19.2	...	...	...	...
4	55.0	47.9	39.0	31.9	26.6	23.1	21.8	20.8	19.9	19.2	...	...	...	...
5	70.0	58.0	48.8	43.5	40.9	39.6	38.9	37.8	35.9	33.0	...	...	...	...
6	80.0	66.3	55.8	49.7	46.8	45.3	44.5	43.2	41.1	37.7	...	...	...	...
7	80.0	66.3	55.8	49.7	46.8	45.3	44.5	43.2	41.1	37.7	...	...	...	...
8	80.0	66.3	55.8	49.7	46.8	45.3	44.5	43.2	41.1	37.7	...	...	...	...
9	80.0	66.3	55.8	49.7	46.8	45.3	44.5	43.2	41.1	37.7	...	...	...	...
10	80.0	66.3	55.8	49.7	46.8	45.3	44.5	43.2	41.1	37.7	...	...	...	...
11	80.0	66.3	55.8	49.7	46.8	45.3	44.5	43.2	41.1	37.7	...	...	...	...
	55.0	50.1	41.0	33.4	27.2	22.3	...	...	...	...	...	...	...	...
	70.0	64.1	55.1	47.1	40.4	35.5	...	...	...	...	...	...	...	...

**Table U (Cont'd)**  
**Tensile Strength Values,  $S_u$ , for Ferrous and Nonferrous Materials**

Tensile Strength, ksi (Multiply by 1000 to Obtain psi), for Metal Temperature, °F, Not Exceeding

Line No.	1050	1100	1150	1200	1250	1300	1350	1400	1450	1500	1550	1600	1650
<b>Nonferrous Materials (Cont'd)</b>													
1	...	...	...	...	...	...	...	...	...	...	...	...	...
2	...	...	...	...	...	...	...	...	...	...	...	...	...
3	...	...	...	...	...	...	...	...	...	...	...	...	...
4	...	...	...	...	...	...	...	...	...	...	...	...	...
5	...	...	...	...	...	...	...	...	...	...	...	...	...
6	...	...	...	...	...	...	...	...	...	...	...	...	...
7	...	...	...	...	...	...	...	...	...	...	...	...	...
8	...	...	...	...	...	...	...	...	...	...	...	...	...
9	...	...	...	...	...	...	...	...	...	...	...	...	...
10	...	...	...	...	...	...	...	...	...	...	...	...	...
11	...	...	...	...	...	...	...	...	...	...	...	...	...
	...	...	...	...	...	...	...	...	...	...	...	...	...
	...	...	...	...	...	...	...	...	...	...	...	...	...

**Table Y-1 (Cont'd)**  
**Yield Strength Values,  $S_y$ , for Ferrous and Nonferrous Materials**

Line No.	Nominal Composition	Product Form	Spec. No.	Type/Grade	Alloy Desig./UNS No.	Class/Condition/ Temper
<b>Nonferrous Materials (Cont'd)</b>						
(23) 1	95.5Zr + 2.5Nb	Forgings	SB-493	...	R60705	Annealed
(23) 2	95.5Zr + 2.5Nb	Smls. & wld. tube	SB-523	...	R60705	Annealed
(23) 3	95.5Zr + 2.5Nb	Bar, wire	SB-550	...	R60705	Annealed
(23) 4	95.5Zr + 2.5Nb	Plate, sheet, strip	SB-551	...	R60705	Annealed
(23) 5	95.5Zr + 2.5Nb	Smls. fittings	SB-653	PZ-5	R60705	Annealed
(23) 6	95.5Zr + 2.5Nb	Wld. fittings	SB-653	PZ-5W	R60705	Annealed
(23) 7	95.5Zr + 2.5Nb	Smls. & wld. pipe	SB-658	...	R60705	Annealed
	99.2Zr	Castings	SB-752	702C	R61702	...
	95.5Zr + 2.5Nb	Castings	SB-752	705C	R61705	...

**Table Y-1 (Cont'd)**  
**Yield Strength Values,  $S_y$ , for Ferrous and Nonferrous Materials**

Line No.	Size/Thickness, in.	Min. Tensile Strength, ksi	Min. Yield Strength, ksi	Notes
<b>Nonferrous Materials (Cont'd)</b>				
1	...	70	55	...
2	...	80	55	...
3	...	80	55	...
4	...	80	55	...
5	...	80	55	...
6	...	80	55	...
7	...	80	55	...
...	...	55	40	...
...	...	70	50	...

**Table Y-1 (Cont'd)**  
**Yield Strength Values,  $S_y$ , for Ferrous and Nonferrous Materials**

Yield Strength, ksi (Multiply by 1000 to Obtain psi), for Metal Temperature, °F, Not Exceeding

Line No.	100	150	200	250	300	350	400	450	500
<b>Nonferrous Materials (Cont'd)</b>									
1	55.0	43.1	37.5	33.1	29.6	26.8	24.6	22.7	21.2
2	55.0	43.1	37.5	33.1	29.6	26.8	24.6	22.7	21.2
3	55.0	43.1	37.5	33.1	29.6	26.8	24.6	22.7	21.2
4	55.0	43.1	37.5	33.1	29.6	26.8	24.6	22.7	21.2
5	55.0	43.1	37.5	33.1	29.6	26.8	24.6	22.7	21.2
6	55.0	43.1	37.5	33.1	29.6	26.8	24.6	22.7	21.2
7	55.0	43.1	37.5	33.1	29.6	26.8	24.6	22.7	21.2
	40.0	33.3	30.1	27.1	24.2	21.5	18.9	16.5	14.5
	50.0	41.9	37.5	33.6	30.1	27.1	24.5	22.0	20.0

**Table Y-1 (Cont'd)**  
**Yield Strength Values,  $S_y$ , for Ferrous and Nonferrous Materials**

Yield Strength, ksi (Multiply by 1000 to Obtain psi), for Metal Temperature, °F, Not Exceeding

Line No.	550	600	650	700	750	800	850	900	950	1000
	<b>Nonferrous Materials (Cont'd)</b>									
1	19.9	18.7	17.8	17.1	16.7	16.7	...	...	...	...
2	19.9	18.7	17.8	17.1	16.7	16.7	...	...	...	...
3	19.9	18.7	17.8	17.1	16.7	16.7	...	...	...	...
4	19.9	18.7	17.8	17.1	16.7	16.7	...	...	...	...
5	19.9	18.7	17.8	17.1	16.7	16.7	...	...	...	...
6	19.9	18.7	17.8	17.1	16.7	16.7	...	...	...	...
7	19.9	18.7	17.8	17.1	16.7	16.7	...	...	...	...
	13.1	11.9	...	...	...	...	...	...	...	...
	18.3	16.8	...	...	...	...	...	...	...	...

**Table Y-1 (Cont'd)**  
**Yield Strength Values,  $S_y$ , for Ferrous and Nonferrous Materials**

Yield Strength, ksi (Multiply by 1000 to Obtain psi), for Metal Temperature, °F, Not Exceeding

Line No.	1050	1100	1150	1200	1250	1300	1350	1400	1450	1500	1550	1600	1650	
<b>Nonferrous Materials (Cont'd)</b>														
1	...	...	...	...	...	...	...	...	...	...	...	...	...	(23)
2	...	...	...	...	...	...	...	...	...	...	...	...	...	(23)
3	...	...	...	...	...	...	...	...	...	...	...	...	...	(23)
4	...	...	...	...	...	...	...	...	...	...	...	...	...	(23)
5	...	...	...	...	...	...	...	...	...	...	...	...	...	(23)
6	...	...	...	...	...	...	...	...	...	...	...	...	...	(23)
7	...	...	...	...	...	...	...	...	...	...	...	...	...	(23)
	...	...	...	...	...	...	...	...	...	...	...	...	...	
	...	...	...	...	...	...	...	...	...	...	...	...	...	



**Table U (Cont'd)**  
**Tensile Strength Values,  $S_u$ , for Ferrous and Nonferrous Materials**

Line No.	Nominal Composition	Product Form	Spec. No.	Type/Grade	Alloy Desig./UNS No.	Class/Condition/ Temper	Size/ Thickness, mm	Min. Tensile Strength, MPa
<b>Nonferrous Materials (Cont'd)</b>								
1	99.2Zr	Plate, sheet, strip	SB-551	...	R60702	Annealed	...	380
2	99.2Zr	Smls. fittings	SB-653	PZ-2	R60702	Annealed	...	380
3	99.2Zr	Wld. fittings	SB-653	PZ-2W	R60702	Annealed	...	380
4	99.2Zr	Smls. & wld. pipe	SB-658	...	R60702	Annealed	...	380
(23) 5	95.5Zr + 2.5Nb	Forgings	SB-493	...	R60705	Annealed	...	485
(23) 6	95.5Zr + 2.5Nb	Smls. & wld. tube	SB-523	...	R60705	Annealed	...	550
(23) 7	95.5Zr + 2.5Nb	Bar, wire	SB-550	...	R60705	Annealed	...	550
(23) 8	95.5Zr + 2.5Nb	Plate, sheet, strip	SB-551	...	R60705	Annealed	...	550
(23) 9	95.5Zr + 2.5Nb	Smls. fittings	SB-653	PZ-5	R60705	Annealed	...	550
(23) 10	95.5Zr + 2.5Nb	Wld. fittings	SB-653	PZ-5W	R60705	Annealed	...	550
(23) 11	95.5Zr + 2.5Nb	Smls. & wld. pipe	SB-658	...	R60705	Annealed	...	550
	99.2Zr	Castings	SB-752	...	R61702	...	...	380
	95.5Zr + 2.5Nb	Castings	SB-752	...	R61705	...	...	483

**Table U (Cont'd)**  
**Tensile Strength Values,  $S_u$ , for Ferrous and Nonferrous Materials**

Tensile Strength, MPa (Multiply by 1000 to Obtain kPa), for Metal Temperature, °C, Not Exceeding															
Line No.	40	100	150	200	250	300	325	350	375	400	425	450	475	500	525
	<b>Nonferrous Materials (Cont'd)</b>														
1	379	323	268	223	189	165	156	149	142	137	133	128	...	...	...
2	379	323	268	223	189	165	156	149	142	137	133	128	...	...	...
3	379	323	268	223	189	165	156	149	142	137	133	128	...	...	...
4	379	323	268	223	189	165	156	149	142	137	133	128	...	...	...
5	483	391	336	302	284	276	272	267	259	247	229	203	...	...	...
6	552	446	384	345	325	315	311	305	296	282	262	232	...	...	...
7	552	446	384	345	325	315	311	305	296	282	262	232	...	...	...
8	552	446	384	345	325	315	311	305	296	282	262	232	...	...	...
9	552	446	384	345	325	315	311	305	296	282	262	232	...	...	...
10	552	446	384	345	325	315	311	305	296	282	262	232	...	...	...
11	552	446	384	345	325	315	311	305	296	282	262	232	...	...	...
	379	337	282	234	195	162	149	...	...	...	...	...	...	...	...
	483	434	379	329	286	253	241	...	...	...	...	...	...	...	...

**Table U (Cont'd)**  
**Tensile Strength Values,  $S_u$ , for Ferrous and Nonferrous Materials**

Tensile Strength, MPa (Multiply by 1000 to Obtain kPa), for Metal Temperature, °C, Not Exceeding

Line No.	550	575	600	625	650	675	700	725	750	775	800	825	850	875	900
<b>Nonferrous Materials (Cont'd)</b>															
1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	(23)
6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	(23)
7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	(23)
8	...	...	...	...	...	...	...	...	...	...	...	...	...	...	(23)
9	...	...	...	...	...	...	...	...	...	...	...	...	...	...	(23)
10	...	...	...	...	...	...	...	...	...	...	...	...	...	...	(23)
11	...	...	...	...	...	...	...	...	...	...	...	...	...	...	(23)
	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

**Table Y-1 (Cont'd)**  
**Yield Strength Values,  $S_y$ , for Ferrous and Nonferrous Materials**

Line No.	Nominal Composition	Product Form	Spec. No.	Type/Grade	Alloy Desig./UNS No.	Class/Condition/ Temper
<b>Nonferrous Materials (Cont'd)</b>						
1	99.2Zr	Smls. & wld. tube	SB-523	...	R60702	Annealed
2	99.2Zr	Bar, wire	SB-550	...	R60702	Annealed
3	99.2Zr	Plate, sheet, strip	SB-551	...	R60702	Annealed
4	99.2Zr	Smls. fittings	SB-653	PZ-2	R60702	Annealed
5	99.2Zr	Wld. fittings	SB-653	PZ-2W	R60702	Annealed
6	99.2Zr	Smls. & wld. pipe	SB-658	...	R60702	Annealed
(23)	95.5Zr + 2.5Nb	Forgings	SB-493	...	R60705	Annealed
(23)	95.5Zr + 2.5Nb	Smls. & wld. tube	SB-523	...	R60705	Annealed
(23)	95.5Zr + 2.5Nb	Bar, wire	SB-550	...	R60705	Annealed
(23)	95.5Zr + 2.5Nb	Plate, sheet, strip	SB-551	...	R60705	Annealed
(23)	95.5Zr + 2.5Nb	Smls. fittings	SB-653	PZ-5	R60705	Annealed
(23)	95.5Zr + 2.5Nb	Wld. fittings	SB-653	PZ-5W	R60705	Annealed
(23)	95.5Zr + 2.5Nb	Smls. & wld. pipe	SB-658	...	R60705	Annealed
	99.2Zr	Castings	SB-752	702C	R61702	...
	95.5Zr + 2.5Nb	Castings	SB-752	705C	R61705	...

**Table Y-1 (Cont'd)**  
**Yield Strength Values,  $S_y$ , for Ferrous and Nonferrous Materials**

Line No.	Size/Thickness, mm	Min. Tensile Strength, MPa	Min. Yield Strength, MPa	Notes
<b>Nonferrous Materials (Cont'd)</b>				
1	...	380	205	...
2	...	380	205	...
3	...	380	205	...
4	...	380	205	...
5	...	380	205	...
6	...	380	205	...
7	...	485	380	...
8	...	550	380	...
9	...	550	380	...
10	...	550	380	...
11	...	550	380	...
12	...	550	380	...
13	...	550	380	...
	...	380	276	...
	...	483	345	...

**Table Y-1 (Cont'd)**  
**Yield Strength Values,  $S_y$ , for Ferrous and Nonferrous Materials**

Yield Strength, MPa (Multiply by 1000 to Obtain kPa), for Metal Temperature, °C, Not Exceeding

Line No.	40	65	100	125	150	175	200	225	250	275
<b>Nonferrous Materials (Cont'd)</b>										
1	207	178	155	138	123	110	98.5	88.2	79.1	71.5
2	207	178	155	138	123	110	98.5	88.2	79.1	71.5
3	207	178	155	138	123	110	98.5	88.2	79.1	71.5
4	207	178	155	138	123	110	98.5	88.2	79.1	71.5
5	207	178	155	138	123	110	98.5	88.2	79.1	71.5
6	207	178	155	138	123	110	98.5	88.2	79.1	71.5
7	379	298	251	225	203	186	171.8	159.9	149.8	141.0
8	379	298	251	225	203	186	171.8	159.9	149.8	141.0
9	379	298	251	225	203	186	171.8	159.9	149.8	141.0
10	379	298	251	225	203	186	171.8	159.9	149.8	141.0
11	379	298	251	225	203	186	171.8	159.9	149.8	141.0
12	379	298	251	225	203	186	171.8	159.9	149.8	141.0
13	379	298	251	225	203	186	171.8	159.9	149.8	141.0
	276	230	202	184	166	149	133	118	105	94.1
	345	290	252	228	207	188	171	156	143	131

**Table Y-1 (Cont'd)**  
**Yield Strength Values,  $S_y$ , for Ferrous and Nonferrous Materials**

Yield Strength, MPa (Multiply by 1000 to Obtain kPa), for Metal Temperature, °C, Not Exceeding

Line No.	300	325	350	375	400	425	450	475	500	525
	<b>Nonferrous Materials (Cont'd)</b>									
1	65.3	60.5	57.0	54.1	52.4	51.7	51.1	...	...	...
2	65.3	60.5	57.0	54.1	52.4	51.7	51.1	...	...	...
3	65.3	60.5	57.0	54.1	52.4	51.7	51.1	...	...	...
4	65.3	60.5	57.0	54.1	52.4	51.7	51.1	...	...	...
5	65.3	60.5	57.0	54.1	52.4	51.7	51.1	...	...	...
6	<del>65.3</del>	60.5	57.0	54.1	52.4	51.7	51.1	...	...	...
7	133.3	126.7	121.2	117.3	115.3	115.3	115.3	...	...	...
8	133.3	126.7	121.2	117.3	115.3	115.3	115.3	...	...	...
9	133.3	126.7	121.2	117.3	115.3	115.3	115.3	...	...	...
10	133.3	126.7	121.2	117.3	115.3	115.3	115.3	...	...	...
11	133.3	126.7	121.2	117.3	115.3	115.3	115.3	...	...	...
12	133.3	126.7	121.2	117.3	115.3	115.3	115.3	...	...	...
13	133.3	126.7	121.2	117.3	115.3	115.3	115.3	...	...	...
	85.9	80.3	...	...	...	...	...	...	...	...
	121	113	...	...	...	...	...	...	...	...

**Table Y-1 (Cont'd)**  
**Yield Strength Values,  $S_y$ , for Ferrous and Nonferrous Materials**

Yield Strength, MPa (Multiply by 1000 to Obtain kPa), for Metal Temperature, °C, Not Exceeding

Line No.	550	575	600	625	650	675	700	725	750	775	800	825	850	875	900
<b>Nonferrous Materials (Cont'd)</b>															
1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	(23)
8	...	...	...	...	...	...	...	...	...	...	...	...	...	...	(23)
9	...	...	...	...	...	...	...	...	...	...	...	...	...	...	(23)
10	...	...	...	...	...	...	...	...	...	...	...	...	...	...	(23)
11	...	...	...	...	...	...	...	...	...	...	...	...	...	...	(23)
12	...	...	...	...	...	...	...	...	...	...	...	...	...	...	(23)
13	...	...	...	...	...	...	...	...	...	...	...	...	...	...	(23)
	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...