

Table 2.4.4-1 Compilation of AISI and A/SP materials property data
typical property values

Mat'l	SAE Class.	Grade		Strength		Total Elng.	n	r	Hard.	Width Range		Thickness	
				Yield	Tensile								
		SAE	AISI	MPa/ksi	MPa/ksi	%			Rb	(mm)	(in)	(mm)	(in)
HR	SAE J2329	1	CQ	269/39	386/56	35	0.19	N/A	60	610 - 1829	24 - 62	1.00 - 9.53	0.070 - 0.500
HR	SAE J2329	2	DQ	248/36	338/49	37	0.19	1.1	54	610 - 1829	24 - 72	1.00 - 9.53	0.055 - 0.375
HR	SAE J2329	3	DDQ	234/34	331/48	41	0.20	1.1	55	610 - 1829	24 - 72	1.00 - 9.53	0.055 - 0.375
CR	SAE J2329	1	CQ	296/43	331/48	35	0.20	1.1	50	610 - 1829	24 - 62	0.38 - 3.30	0.020 - 0.120
CR	SAE J2329	2	DQ	186/27	317/46	38	0.22	1.5	42	610 - 1829	24 - 72	0.38 - 3.30	0.015 - 0.130
CR	SAE J2329	3	DQ	186/27	317/46	42	0.22	1.5	42	610 - 1829	24 - 72	0.38 - 3.30	0.015 - 0.130
CR	SAE J2329	4	DDQ	172/25	310/45	44	0.23	1.7	38	610 - 1829	24 - 72	0.38 - 3.30	0.015 - 0.130
CR	SAE J2329	5	EDDQ	159/23	303/44	46	0.23	2.0	32	610 - 1829	24 - 72	0.38 - 3.30	0.015 - 0.130
CR	SAE J2340	180A	Dent Resist	200/29	350/50	40	0.22	1.7	63	610 - 1829	24 - 72	0.64 - 2.79	0.025 - 0.110
CR	SAE J2340	210A	Dent Resist	210/30	375/54	39	0.21	1.6	65	610 - 1829	24 - 72	0.64 - 2.79	0.025 - 0.110
CR	SAE J2340	250A	Dent Resist	270/39	400/58	36	0.20	1.5	68	610 - 1829	24 - 72	0.64 - 2.79	0.025 - 0.110
CR	SAE J2340	280A	Dent Resist	300/43	430/62	36	0.18	1.4	70	610 - 1829	24 - 72	0.64 - 2.79	0.025 - 0.110
CR	SAE J2340	180B	Bake Hard	200/29	320/46	39	0.20	1.7	52	610 - 1829	24 - 72	0.64 - 2.79	0.025 - 0.110
CR	SAE J2340	210B	Bake Hard	221/32	352/51	41	0.19	1.6	54	610 - 1829	24 - 72	0.64 - 2.79	0.025 - 0.110
CR	SAE J2340	250B	Bake Hard	255/37	379/55	39	0.18	1.4	58	610 - 1829	24 - 72	0.64 - 2.79	0.025 - 0.110
CR	SAE J2340	280B	Bake Hard	324/47	421/61	37	0.17	1.1	67	610 - 1829	24 - 72	0.64 - 2.79	0.025 - 0.110
HR	SAE J2340	300S	HSS	340/49	450/65	30	0.17	N/A	72	610 - 1829	24 - 72	1.00 - 9.53	0.055 - 0.375
CR	SAE J2340	300S	HSS	340/49	379/55	28	0.17	1.0	70	610 - 1829	24 - 72	0.64 - 2.79	0.025 - 0.110
HR	SAE J2340	340S	HSS	407/59	483/70	28	0.16	N/A	75	610 - 1829	24 - 72	0.64 - 2.79	0.025 - 0.110
CR	SAE J2340	340S	HSS	379/55	455/66	26	0.17	1.3	72	610 - 1575	24 - 62	0.64 - 2.03	0.025 - 0.080
HR	SAE J2340	300X	HSLA	350/51	407/59	32	0.17	N/A	72	610 - 1829	24 - 72	1.00 - 9.53	0.055 - 0.375
CR	SAE J2340	300X	HSLA	352/51	469/68	28	0.16	1.1	70	610 - 1829	24 - 72	0.38 - 3.30	0.015 - 0.130
CR	SAE J2340	300Y	HSLA	350/51	407/59	25	0.17	N/A	72	610 - 1829	24 - 72	0.38 - 3.30	0.015 - 0.130
HR	SAE J2340	340X	HSLA	407/59	483/70	30	0.17	N/A	75	610 - 1829	24 - 72	1.00 - 9.53	0.055 - 0.375
CR	SAE J2340	340X	HSLA	365/53	476/69	27	0.15	1.1	76	610 - 1524	24 - 60	0.76 - 3.18	0.030 - 0.125
CR	SAE J2340	340Y	HSLA	365/53	476/69	26	0.15	1.1	76	610 - 1524	24 - 60	0.76 - 3.18	0.030 - 0.125
CR	SAE J2340	380X	HSLA	462/67	524/76	26	0.14	1.0	80	610 - 1524	24 - 60	0.76 - 3.18	0.030 - 0.125
CR	SAE J2340	380Y	HSLA	462/67	524/76	24	0.14	1.0	80	610 - 1524	24 - 60	0.76 - 3.18	0.030 - 0.125
HR	SAE J2340	420X	HSLA	476/69	531/77	27	0.15	N/A	87	610 - 1829	24 - 72	1.00 - 9.53	0.055 - 0.375
CR	SAE J2340	420X	HSLA	462/67	524/76	25	0.15	1.0	87	610 - 1524	24 - 60	0.76 - 3.18	0.030 - 0.125
CR	SAE J2340	420Y	HSLA	462/67	524/76	22	0.15	1.0	87	610 - 1524	24 - 60	0.76 - 3.18	0.030 - 0.125
HR	SAE J2340	490X	HSLA	531/77	600/87	24	0.13	N/A	90	610 - 1829	24 - 72	1.00 - 9.53	0.055 - 0.375
CR	SAE J2340	490X	HSLA	531/77	600/87	19	0.13	N/A	90	610 - 1524	24 - 60	0.76 - 3.18	0.030 - 0.125
CR	SAE J2340	490Y	HSLA	531/77	600/87	17	0.13	N/A	90	610 - 1524	24 - 60	0.76 - 3.18	0.030 - 0.125
HR	SAE J2340	550X	HSLA	586/85	676/98	17	0.12	N/A	96	610 - 1829	24 - 72	1.00 - 9.53	0.055 - 0.375
CR	SAE J2340	550X	HSLA	586/85	676/98	17	0.12	N/A	96	610 - 1524	24 - 60	0.76 - 3.18	0.050 - 0.125
HR/CR	SAE J2340	550Y	HSLA	586/85	676/98	17	0.12	N/A	96	610 - 1524	24 - 60	0.76 - 3.18	0.050 - 0.125
CR	SAE J2340	490R	Rec Anneal	540/78	600/87	15	N/A	N/A	90	610 - 1524	24 - 60	0.76 - 3.18	0.050 - 0.125
CR	SAE J2340	550R	Rec Anneal	600/87	700/101	12	0.12	N/A	96	610 - 1524	24 - 60	0.76 - 3.18	0.050 - 0.125
CR	SAE J2340	700R	Rec Anneal	750/108	800/116	11	N/A	N/A	N/A	610 - 1524	24 - 60	0.76 - 3.18	0.050 - 0.125
CR	SAE J2340	830R	Rec Anneal	900/130	1000/145	4	N/A	N/A	N/A	610 - 1524	24 - 60	0.76 - 3.18	0.050 - 0.125
HR/CR	SAE J2340	500DH	Dual Phase	340/49	550/80	25	N/A	N/A	90	610 - 1524	24 - 60	0.48 - 2.16	0.050 - 0.125
HR/CR	SAE J2340	600DH	Dual Phase	550/80	710/103	17	N/A	N/A	96	610 - 1524	24 - 60	0.48 - 2.16	0.050 - 0.125
HR/CR	SAE J2340	600DL1	Dual Phase	550/80	710/103	18	N/A	N/A	96	610 - 1524	24 - 60	0.48 - 2.16	0.050 - 0.125
HR/CR	SAE J2340	600DL2	Dual Phase	550/80	710/103	23	N/A	N/A	96	610 - 1524	24 - 60	0.48 - 2.16	0.050 - 0.125
HR/CR	SAE J2340	700DH	Dual Phase	600/87	760/110	15	N/A	N/A	97	610 - 1524	24 - 60	0.48 - 2.16	0.050 - 0.125
HR/CR	SAE J2340	800DL	Dual Phase	580/84	860/125	10	N/A	N/A	104	610 - 1524	24 - 60	0.48 - 2.16	0.050 - 0.125
HR/CR	SAE J2340	950DL	Dual Phase	680/98	1050/152	10	N/A	N/A	106	610 - 1524	24 - 60	0.48 - 2.16	0.050 - 0.125
HR/CR	SAE J2340	1000DL	Dual Phase	810/117	1070/155	7	N/A	N/A	106	610 - 1524	24 - 60	0.48 - 2.16	0.050 - 0.125
HR/CR	SAE J2340	800M	Martensite	800/116	900/131	N/A	N/A	N/A	N/A	610 - 1295	24 - 51	0.48 - 1.50	0.020 - 0.060
HR/CR	SAE J2340	900M	Martensite	900/130	1025/149	5	N/A	N/A	N/A	610 - 1295	24 - 51	0.48 - 1.50	0.020 - 0.060
HR/CR	SAE J2340	1000M	Martensite	960/139	1090/158	N/A	N/A	N/A	N/A	610 - 1295	24 - 51	0.48 - 1.50	0.020 - 0.060
HR/CR	SAE J2340	1100M	Martensite	1030/149	1180/171	5	N/A	N/A	N/A	610 - 1295	24 - 51	0.48 - 1.50	0.020 - 0.060
HR/CR	SAE J2340	1200M	Martensite	1140/165	1340/194	5	N/A	N/A	N/A	610 - 1295	24 - 51	0.48 - 1.50	0.020 - 0.060
HR/CR	SAE J2340	1300M	Martensite	1200/174	1400/203	5	N/A	N/A	N/A	610 - 1295	24 - 51	0.48 - 1.50	0.020 - 0.060
HR/CR	SAE J2340	1400M	Martensite	1260/183	1480/214	5	N/A	N/A	N/A	610 - 1295	24 - 51	0.48 - 1.50	0.020 - 0.060
HR/CR	SAE J2340	1500M	Martensite	1350/196	1580/229	5	N/A	N/A	N/A	610 - 1295	24 - 51	0.48 - 1.50	0.020 - 0.060