



HSM Wire International, Inc

Ph: 330-244-8501 Fax: 330-244-8561

www.hsmwire.com



Music Wire- ASTM A 228

Nominal Composition:	C%	Fe%	Mn%
	0.70 - 1.0	>= 98.4	0.20 - 0.60

Applications: Design Engineers use Music Wire for applications that require high stress or good fatigue properties. Cold Drawn.

Physical & Mechanical Properties

English Units

Tensile Strength, Yield	231,000 - 399,000 (varies according to wire size)
Poissons Ratio	0.313
Maximum Service Temperature, Air	248 °F
Density	.284 lb / cu. in. @68 °F
Rockwell Hardness	C41 - 60
Modulus of Elasticity (Tension)	30500 ksi
Shear Modulus	11600 ksi

Diameter	Tensile Range (PSI)	Breaking Strength/lbs
0.002	Request	Request
0.003	Request	Request
0.004	439 - 485.000	5.5 - 6.1
0.005	426 - 471.000	8.4 - 9.2
0.006	415 - 459.000	11.7 - 13.0
0.007	407 - 449.000	15.7 - 17.3
0.008	399 - 441.000	20.1 - 22.2
0.009	393 - 434.000	25.0 - 27.6
0.010	387 - 428.000	30.4 - 33.6
0.011	382 - 422.000	36.3 - 40.1
0.012	377 - 417.000	42.6 - 47.2
0.013	373 - 412.000	49.5 - 54.7
0.014	369 - 408.000	57 - 63
0.015	365 - 404.000	65 - 71
0.016	362 - 400.000	73 - 80
0.017	359 - 397.000	82 - 90
0.018	356 - 393.000	91 - 100
0.019	353 - 390.000	100 - 111
0.020	350 - 387.000	110 - 122
0.021	348 - 385.000	121 - 133
0.022	345 - 382.000	131 - 145
0.023	343 - 380.000	143 - 158

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Diameter	Tensile Range (PSI)	Breaking Strength/lbs
0.024	341 - 377.000	154 - 171
0.025	339 - 375.000	166 - 184
0.026	337 - 373.000	179 - 198
0.027	335 - 371.000	192 - 212
0.028	333 - 368.000	205 - 227
0.029	332 - 367.000	219 - 242
0.030	330 - 365.000	233 - 258
0.031	329 - 363.000	248 - 274
0.032	327 - 361.000	263 - 290
0.033	326 - 360.000	279 - 308
0.034	325 - 358.000	294 - 325
0.035	323 - 357.000	311 - 343
0.036	321 - 355.000	321 - 361
0.037	320 - 354.000	344 - 381
0.038	318 - 352.000	361 - 399
0.039	317 - 351.000	379 - 419
0.040	315 - 349.000	396 - 439
0.041	314 - 348.000	415 - 459
0.042	313 - 346.000	434 - 479
0.043	312 - 345.000	453 - 501
0.044	310 - 343.000	471 - 522
0.045	309 - 342.000	491 - 544
0.046	308 - 341.000	512 - 567
0.047	307 - 340.000	533 - 590
0.048	306 - 339.000	554 - 613
0.049	305 - 338.000	575 - 637
0.050	304 - 336.000	597 - 660
0.051	303 - 335.000	619 - 684
0.052	302 - 334.000	642 - 710
0.053	301 - 333.000	665 - 735
0.054	300 - 332.000	688 - 761
0.055	300 - 331.000	713 - 787
0.056	299 - 330.000	737 - 814
0.057	298 - 329.000	761 - 840
0.058	297 - 328.000	786 - 868
0.059	296 - 327.000	810 - 895
0.060	295 - 326.000	835 - 923
0.061	294 - 325.000	860 - 951
0.062	293 - 324.000	886 - 979

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0.063	393 - 324.000	914 - 1,011
0.064	292 - 323.000	940 - 1,040
0.065	291 - 322.000	967 - 1,070
0.066	290 - 321.000	993 - 1,099
0.067	290 - 321.000	1,024 - 1,133
0.068	290 - 321.000	1,054 - 1,167
0.069	289 - 320.000	1,088 - 1,198
0.070	288 - 319.000	1,110 - 1,229
0.071	287 - 318.000	1,137 - 1,260
0.072	287 - 317.000	1,170 - 1,292
0.073	286 - 316.000	1,198 - 1,324
0.074	285 - 315.000	1,227 - 1,356
0.075	284 - 314.000	1,256 - 1,389
0.076	284 - 314.000	1,290 - 1,426
0.077	283 - 313.000	1,319 - 1,459
0.078	283 - 313.000	1,354 - 1,497
0.079	282 - 312.000	1,384 - 1,531
0.080	282 - 312.000	1,419 - 1,570
0.081	281 - 311.000	1,449 - 1,603
0.082	280 - 310.000	1,478 - 1,637
0.083	280 - 309.000	1,515 - 1,673
0.084	279 - 309.000	1,546 - 1,712
0.085	279 - 308.000	1,583 - 1,746
0.086	278 - 307.000	1,615 - 1,783
0.087	278 - 307.000	1,653 - 1,825
0.088	277 - 306.000	1,658 - 1,861
0.089	276 - 305.000	1,717 - 1,897
0.090	276 - 305.000	1,756 - 1,940
0.091	275 - 304.000	1,789 - 1,977
0.092	275 - 304.000	1,828 - 2,020
0.093	275 - 304.000	1,868 - 2,065
0.094	274 - 303.000	1,901 - 2,103
0.095	274 - 303.000	1,943 - 2,148
0.096	273 - 302.000	1,976 - 2,186
0.097	273 - 302.000	2,017 - 2,232
0.098	272 - 301.000	2,052 - 2,270
0.099	272 - 301.000	2,094 - 2,317
0.100	271 - 300.000	2,128 - 2,356
0.101	271 - 300.000	2,171 - 2,404

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0.102	270 - 299.000	2,206 - 2,443
0.103	270 - 298.000	2,250 - 2,483
0.104	269 - 298.000	2,285 - 2,531
0.105	269 - 297.000	2,329 - 2,572
0.106	268 - 296.000	2,365 - 2,612
0.107	268 - 296.000	2,410 - 2,662
0.108	268 - 296.000	2,455 - 2,712
0.109	268 - 296.000	2,491 - 2,753
0.110	267 - 295.000	2,537 - 2,845
0.111	267 - 295.000	2,537 - 2,845
0.112	267 - 295.000	2,537 - 2,845
0.113	267 - 295.000	2,537 - 2,845
0.114	267 - 295.000	2,537 - 2,845
0.115	267 - 295.000	2,537 - 2,845
0.116	267 - 295.000	2,537 - 2,845
0.117	267 - 295.000	2,537 - 2,845
0.118	267 - 295.000	2,537 - 2,845
0.119	267 - 295.000	2,537 - 2,845
0.120	267 - 295.000	2,537 - 2,845
0.121	267 - 295.000	2,537 - 2,845
0.122	267 - 295.000	2,537 - 2,845
0.123	267 - 295.000	2,537 - 2,845
0.124	267 - 295.000	2,537 - 2,845
0.125	267 - 295.000	2,537 - 2,845

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