



ZAPP Precision Wire, Inc. Wireline Specifications	ZAPP Precision Wire, Inc. 475 INTERNATIONAL CIRCLE SUMMERVILLE, S.C. 29483 TELEPHONE 888-777-3962 843-851-0700 TELEFAX 843-851-0010 WWW.ZAPPUSA.COM	DATE: 05/09/2007
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For down hole oil, gas, and geothermal drilling, where severe corrosive environments are involved:

- ◆ Recommended Grades: Type 316, XM19, 25-6MO*, 27-7MO, MP35N®
- ◆ Sizes: .082", .092", .108", .125", .140", .150", .160" (other sizes as requested)
- ◆ Lengths: 10,000/35,000 feet measured lengths (+500, -0 feet tolerance)
- ◆ Tempers: 200,000/270,000 psi, depending upon alloy
- ◆ Packaging: 500 and 1,000 pound non-returnable reels; 1,200# and 1400# steel returnable reels
- ◆ Alloy chemistry (key elements):

Alloy	UNS	C	Mn	Cr	Ni	Mo	Cu	N	Co	Ti
316	S31600	.08	2.0	16.0-18.0	10.0-14.0	2.0-3.0	-	-	-	-
XM19	S20910	.06	4.0-6.0	20.5-23.5	11.5-13.5	1.5-3.0	-	.20-.40	-	-
25-6MO*	NO8926	.02	2.0	19.0-21.0	24.0-26.0	6.0-7.0	0.5-1.5	.15-.25	-	-
27-7MO	S31277	.02	3.0	20.5-23.0	26.0-28.0	6.6-8.0	0.5-1.5	.30-.40	-	-
MP35N®	R30035	.02	0.1	19.0-21.0	33.0-37.0	9.0-10.5	-	-	BAL	1.0

*Note: 25-6MO, SUPA75®, and GD31MO® have equivalent chemistries
 Chemical values are maximum values unless a range is given or otherwise noted

	Size	316	XM19	25-6MO	27-7MO	MP35N®
	.082"	1100#	1190#	1175#	1200#	1225#
◆ Minimum break strength:	.092"	1400#	1500#	1475#	1510#	1520#
	.108"	1880#	2065#	2050#	2075#	2090#
	.125"	2500#	2740#	2650#	2750#	2770#
	.140"	3140#	3430#	3250#	3460#	3470#
	.150"	3620#	3950#	3750#	3960#	3970#
	.160"	4100#	4500#	4250#	4510#	4520#

	Size	316	XM19	25-6MO	27-7MO	MP35N®
◆ Recommended safe working load (60% of min. break strength):	.082"	660#	715#	705#	720#	735#
	.092"	840#	900#	885#	905#	910#
	.108"	1125#	1240#	1230#	1245#	1255#
	.125"	1500#	1645#	1590#	1650#	1660#
	.140"	1885#	2060#	1950#	2075#	2080#
	.150"	2170#	2370#	2250#	2375#	2380#
	.160"	2460#	2700#	2550#	2705#	2710#

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◆ Minimum Sheave Diameter (inches):

Wire size	Sheave size
.082"	13"
.092"	13"
.108"	15"
.125"	17.5"
.140"	20"
.150"	20"
.160"	22"

◆ Density / Corrosion:

Alloy	Density (lb/in ³)	Corrosion (PREN)
316	.285	25
XM19	.285	38
25-6MO	.290	47
27-7MO	.290	56
MP35N®	.309	53

GOOD WIRELINE HANDLING PRACTICES

- Do not drop or damage spools
- Maintain adequate back tension during respooling and winding operations
- Maintain natural curvature of the wire during winding and respooling operations
- Do not rub on ground or non-rolling sheaves and bearing surfaces
- Do not allow loops, bends, or kinks to occur—this can damage or break the line
- Do clean the wireline after use

GAK
6/1/05