

Plain Carbon Wireline

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Chemical Composition

Element	C	Si	Mn	P	S	Cr	Mo	Cu	Ni	N
Weight %	0.9 Max	0.15 - 0.35	0.4 - 0.7	0.02 Max	0.025 Max	0.10 - Max	0.02 Max	0.10 Max	0.10 Max	0.007 Max

Wireline Diameter	Inches	0.092	0.108	0.125	0.140	0.160
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Mechanical Properties

Wireline Diameter	Millimetres	2.34	2.74	3.18	3.56	4.06
	Inches	0.092	0.108	0.125	0.140	0.160
Minimum Breaking Load	lbf	1547	2109	2837	3505	4508
Typical Breaking Load	lbf	1760	2345	3355	3795	4957
Minimum UTS	N/mm ²	1600	1590	1590	1570	1570
Typical UTS	N/mm ²	1820	1770	1885	1700	1700
Yield Strength	(0.2% P.S.)	80% UTS	80% UTS	80% UTS	80% UTS	80% UTS
Elastic Limit		25% UTS	25% UTS	25% UTS	25% UTS	25% UTS
Modulus of Elasticity	N/mm ²	18 X 10 ⁴	18 X 10 ⁴	18 X 10 ⁴	18 X 10 ⁴	18 X 10 ⁴
Recommended Safe Load		60% UTS	60% UTS	60% UTS	60% UTS	60% UTS
Sheave Diameter	Inches	11	13	15	17	20
Torsions	"(Min 8" sample)"	23	19	19	14	11

Physical Properties

Wireline Diameter	Millimetres	2.34	2.74	3.18	3.56	4.06
	Inches	0.092	0.108	0.125	0.140	0.160
Density	g/cm ³	7.87	7.87	7.87	7.87	7.87
Coefficient of Liner Expansion	Mm/m/°C	0.11	0.11	0.11	0.11	0.11
Wireline Weight	lb/1000ft	22.66	31.23	41.84	52.41	68.45
Minimum Wireline Stretch	Inch/100ft/100lb	0.70	0.51	0.38	0.307	0.236
Thermal Conductivity	W/m.K	50	50	50	50	50
Specific Heat	J/kg.K	532	532	532	532	532
Resistivity	μOhm Cm	17	17	17	17	17
Magnetic Permeability		2420	2420	2420	2420	2420

Corrosion Resistance

H ₂ S + CO ₂	Very poor, may be used in very low H ₂ S (1-2ppm) and CO ₂ (2-3%) with inhibitors
Chloride (Brine, salt etc.)	Good - wire must be cleaned after use to prevent pitting
H ₂ S + CO ₂ + Chloride	Extremely poor due to the presence of H ₂ S + CO ₂

100% Non-destructive Tested

100% Weld Free

Every Wireline is individually numbered providing full traceability

Individually crated to protect during shipment.

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