

TEC Summary

Application

TEC wire provides an electrical connection between the tool string and the wellhead. The TEC wire comes in 1/4" and 1/8" OD and has a number of options for insulation, armor and encapsulation.

Encapsulation

Wire Size	Encapsulation Size	Material
1/8" OD	0.25" Round	Polypropylene - Standard
		Santoprene
		Rislan - Diesel Protection
4mm OD	11mm x 11mm	Polypropylene - Standard
		Santoprene
		Rislan - Diesel Protection
1/4" OD	11mm x 11mm	Polypropylene - Standard
		Santoprene
		Rislan - Diesel Protection
	0.375" Round	Polypropylene - Standard
		Santoprene
		Rislan - Diesel Protection

Armor

Wire Size	Type	Wall Thickness	Pressure
1/8" OD	316SS	0.024" Triple Tube	20,000 psi
	Inconel 825		
4mm OD	316SS	0.028"	20,000 psi
	Inconel 825	0.028"	22,500 psi
		0.028"	17,500 psi
	1/4" OD	316SS	0.035"
0.049"			32,500 psi
Inconel 825		0.028"	20,000 psi
		0.035"	27,500 psi
		0.049"	35,000 psi



Insulation

Wire Size	Type	Maximum Temperature
1/8" OD	Teflon	200°C
4mm OD	Teflon	200°C
1/4" OD	Halar E	100°C
	Halar P	150°C
	Teflon	200°C

Conductor

Wire Size	Gauge
1/8" OD	22 AWG
	18 AWG
	16 AWG
4mm OD	18 AWG
1/4" OD	18 AWG
	16 AWG

Tensile Strength

OD (in)	Material	Wall (in)	Burst Pressure (psi)	0.2% YS (lb)	UTS. (lb)
0.125	I825	0.022	31,496	676	1,068
0.125	SS316	0.022	31,496	641	1,068
0.157	I825	0.028	32,075	1,078	1,702
0.157	SS316	0.028	32,075	1,021	1,702
0.25	I825	0.028	20,283	1,851	2,929
0.25	I825	0.035	25,000	2,246	3,546
0.25	I825	0.049	35,317	2,939	4,641
0.25	SS316	0.028	20,283	1,758	2,929
0.25	SS316	0.035	25,000	2,128	3,546
0.25	SS316	0.049	35,317	2,785	4,641

