

# 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
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		
1/4" OD	316SS	0.028"	17,500 psi
		0.035"	25,000 psi
		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
	Halar E	100°C
1/4" OD	Halar P	150°C
	Teflon	200°C

## Conductor

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

## Tensile Strength

OD	Material	Wall	Burst Pressure	0.2% YS	UTS.
0.125 in	I825	0.22 in	31,496 psi	676 lb	1,068 lb
0.125	SS316	0.22	31,496	641	1,068
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

