

## Section 10

### COAXIAL CABLE and FITTINGS

Updated 23 February 2011

### ZCG1250SF 1/2" Super Flexible Foam Dielectric Coaxial Cable, 50 Ohm



The specifications and attenuation performance of our 1/2" Super Flexible foam dielectric 50 ohm coaxial cable are comparable with any other brand available. A fine choice whenever super flexible cable is required.

Available in cut lengths the Order Code is **ZCG1250SF**.

To reduce the price per metre purchase the full 500 metre roll; Order Code **ZCG1250SF-500**.



#### Electrical Specifications

Capacitance, pF/m(ft)	80(24.4)
Impedance, ohms	50 ± 2
Velocity, Percent	83
Peak Power Rating, kW	19
RF Peak Voltage, KV	1.13
Insulation Resistance, MΩ · km	>5000
Cut-off Frequency, (GHz)	12.5
Insulation Voltage, KV	2.5
Inner Conductor DC Resistance, Ω /km	2.85
Outer Conductor DC Resistance, Ω /km	3.50
Jacket Spark, KV	5.0
Shielding Effectiveness, dB	> 120
VSWR(Return Loss)	
0.005-3GHz	≤1.15(≥23dB)
0.8-1.0GHz	≤1.10(≥26dB)
1.7-2.0GHz	≤1.10(≥26dB)
2.0-2.4GHz	≤1.10(≥26dB)

#### Mechanical and Environmental Specifications

Minimum Bending Radius	
Single Bend, mm(in)	15(0.6)
Repeated Bends, mm(in)	30(1.2)
Number of Bends	15
Mobile Apply, mm(in)	200(8)
Bending Moment, N · m(lb-ft)	1.8(1.3)
Tensile Strength, kg(lb)	65(146)
Storage Temperature, °C(°F)	-55to+85(-67to+185)
Installation Temperature, °C(°F)	-40to+60(-40to+140)
Operating Temperature, °C(°F)	-55to+85(-67to+185)
Cable Weight, kg/m (lb/ft)	0.20(0.14)

#### Construction Specifications

Inner Conductor	Copper-Clad Aluminum Wire or Copper
Dielectric	Physical Foam Polyethylene
Outer Conductor	Helical Copper Tube
Jacket	Black PE or Low Smoke Halogen-free Fire-retardant

#### Physical Dimensions

Inner Conductor Diameter, mm(in)	3.55(0.14)
Dielectric Diameter, mm(in)	8.7(0.34)
Outer Conductor Diameter, mm(in)	12.0(0.47)
Diameter Over Jacket, mm(in)	13.4(0.53)

#### Attenuation and Average Power

Frequency MHz	Attenuation		Average Power(KW)
	dB/100 m	dB/100 ft	
100	3.22	0.98	3.03
200	4.65	1.42	2.11
450	7.20	2.19	1.37
800	9.86	3.01	1.00
900	10.56	3.22	0.94
1000	11.15	3.40	0.88
1500	13.80	4.21	0.70
1800	15.55	4.74	0.63
2000	16.40	5.00	0.59
2200	17.35	5.29	0.56
2400	18.10	5.52	0.53
2500	18.50	5.64	0.52
3000	20.90	6.37	0.48

#### Standard Conditions:

For attenuation: VSWR 1.0, cable temperature 20°C(68°F)

For average power: VSWR 1.0, ambient temperature 40°C(104°F),

inner conductor temperature 100°C(212°F). No solar loading.