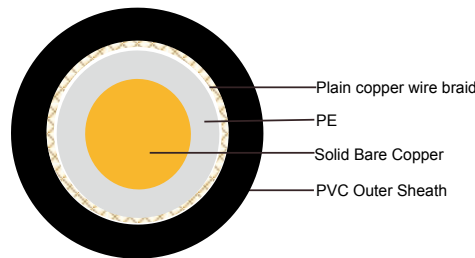


Flame Retardant RG59 B/U Coaxial Cables



APPLICATION

The cables are designed for CCTV, security, smoke detection and evacuation monitoring applications, where continued functionality is required during a fire situation. Due to the zero halogen low smoke construction, this cable is ideal for use in public, commercial and industrial environments.

STANDARDS

Basic design adapted to MIL-C-17

FIRE PERFORMANCE

Flame Retardance (Single Vertical Wire Test)**	EN 60332-1-2; IEC 60332-1-2; BS EN 60332-1-2; VDE 0482-332-1 ; NBN C 30-004 (cat. F1); NF C32-070-2.1(C2); CEI 20-35/1-2; EN 50265-2-1*; DIN VDE 0482-265-2-1*
Reduced Fire Propagation (Vertically-mounted bundled wires & cable test)**	EN 60332-3-22 (cat. A); IEC 60332-3-22; BS EN 60332-3-22; VDE 0482-332-3; NBN C 30-004 (cat. F2); NF C32-070-2.2(C1); CEI 20-22/3-4; EN 50266-2-4*; DIN VDE 0482-266-2-4

Note: Asterisk ** denotes that the standard compliance is optional, depending on the oxygen index of the PVC compound and the cable design.

CABLE CONSTRUCTION

Conductors: Copper clad steel, solid according to IEC(EN) 60228 class 1.

Insulation: PE compound.

Overall Screen: Plain copper wire braid

Outer Sheath: Thermoplastic PVC compound. UV resistance, hydrocarbon resistance, oil resistance, anti rodent and anti termite properties can be offered as option. Compliance to fire performance standard (IEC 60332-1, IEC 60332-3, UL 1581, UL 1666 etc) depends on the oxygen index of the PVC compound and the overall cable design. LSPVC can also be provided upon request.

PHYSICAL AND THERMAL PROPERTIES

Temperature range during operation (fixed state): -30°C - +70°C

Temperature range during installation (mobile state): -5°C - +60°C



Minimum bending radius: 8 x Overall Diameter

ELECTRICAL PROPERTIES

Impedance	75±5Ω
Capacitance	67 NF/KM
Velocity ratio(%)	66
Insulation resistance	>2000 Mohm.Km
Shield coverage	95%
DC resistance	
Inner conductor	158 Ω/km
Outer conductor	9.0 Ω/km

ATTENUATION

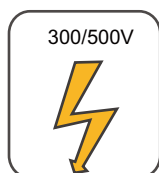
Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100ft)
50	7.4	2.26
100	10.7	3.26
200	15.7	4.79
400	22.7	6.92
500	25.7	7.84
600	28.7	8.75
860	34.8	10.61
1000	38.0	11.59

RETURN LOSS

Frequency(MHz)	Return Loss (dB)
30-300 MHz	>31dB
300-600 MHz	>28dB
600-900 MHz	>24dB

CONSTRUCTION PARAMETERS

Cable Code	Conductor Diameter	Nominal Insulation Diameter	Nominal Screen No.x Diameter	Nominal Overall Diameter	Approx. Weight
	mm	mm	No. x mm	mm	kg/km
FGD-RG59 B/U	0.58 ± 0.03	3.70 ± 0.10 m	120 x 0.15	6.20	60.3



Rated Voltage



Standard



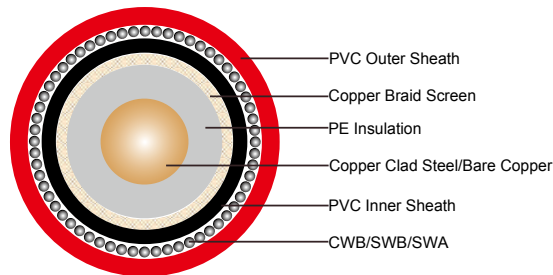
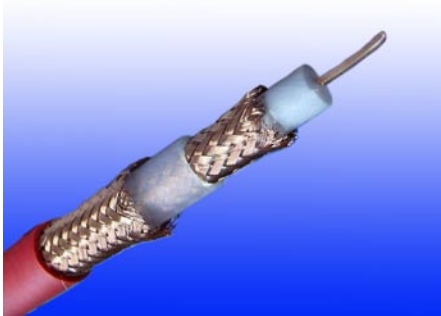
Flame Retardancy**
NF C32-070-2.1(C2)
IEC60332-1-2/EN50265-2-1



Reduced Fire Propagation**
NF C32-070-2.2(C1)
IEC60332-3-22/EN50266-2-4

Flame Retardant RG59 B/U CWB/SWB/SWA Armoured Coaxial Cables

RG59 B/U CWB/SWB/SWA



APPLICATION

These 75Ω coaxial cables are suitable for installation on board of ships and other indoor marine environments.

STANDARDS

Basic design adapted to MIL-C-17

FIRE PERFORMANCE

Flame Retardance (Single Vertical Wire Test)**	EN 60332-1-2; IEC 60332-1-2; BS EN 60332-1-2; VDE 0482-332-1; NBN C 30-004 (cat. F1); NF C32-070-2.1(C2); CEI 20-35/1-2; EN 50265-2-1*; DIN VDE 0482-265-2-1*
Reduced Fire Propagation (Vertically-mounted bundled wires & cable test)**	EN 60332-3-22 (cat. A); IEC 60332-3-22; BS EN 60332-3-22; VDE 0482-332-3; NBN C 30-004 (cat. F2); NF C32-070-2.2(C1); CEI 20-22/3-4; EN 50266-2-4*; DIN VDE 0482-266-2-4

Note: Asterisk ** denotes that the standard compliance is optional, depending on the oxygen index of the PVC compound and the cable design.

CABLE CONSTRUCTION

Conductors: Copper clad steel or bare copper, solid according to IEC 60228 class 1.

Insulation: PE compound.

Overall Screen: Plain copper wire braid

Inner Sheath: Thermoplastic PVC compound.

Armouring:

CWB: Copper Wire Braid

SWB: Steel Wire Braid

SWA: Steel Wire Armour

Outer Sheath: Thermoplastic PVC compound. UV resistance, hydrocarbon resistance, oil resistance, anti rodent and anti termite properties can be offered as option. Compliance to fire performance standard (IEC 60332-1, IEC 60332-3, UL 1581, UL 1666 etc) depends on the oxygen index of the PVC compound and the overall cable design. LSPVC can also be provided upon request.

PHYSICAL AND THERMAL PROPERTIES

Temperature Range: -30°C - +75°C

Minimum Bending Radius: 15 X Overall Diameter



ELECTRICAL PROPERTIES

Impedance	75±5Ω
Capacitance	67 nF/km
Velocity ratio	66%
Insulation resistance	>2000 Mohm.Km
Shield coverage	95%
DC resistance	
Inner conductor	161 Ω/km
Outer conductor	8.5 Ω/km

ATTENUATION

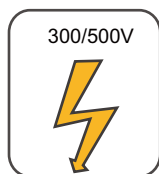
Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100ft)
50	7.4	2.26
100	10.7	3.26
200	15.7	4.79
400	22.7	6.92
500	25.7	7.84
600	28.7	8.75
860	34.8	10.61
1000	38.0	11.59

RETURN LOSS

Frequency(MHz)	Return Loss (dB)
30-300 MHz	>31dB
300-600 MHz	>28dB
600-900 MHz	>24dB

CONSTRUCTION PARAMETERS

Cable Code	Nominal Inner Conductor Diameter	Nominal Insulation Thickness	Nominal Outer Sheath Thickness	Nominal Overall Diameter	Nominal Weight
	mm	mm	mm	mm	kg/km
RG59 B/U CWB	0.58	1.4	1.2	9.78	146
RG59 B/U SWB	0.58	1.4	1.2	9.78	114
RG59 B/U SWA	0.58	1.4	1.2	10.8	220



Rated Voltage



Standard

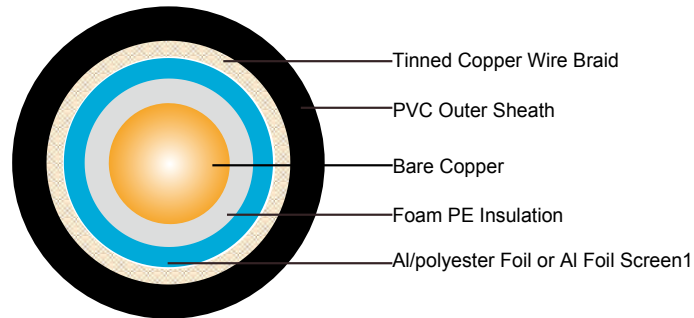


Flame Retardancy**
NF C32-070-2.1(C2)
IEC60332-1-2/EN50265-2-1



Reduced Fire Propagation**
NF C32-070-2.2(C1)
IEC60332-3-22/EN50266-2-4

Flame Retardant RG6 A/U Coaxial Cables



APPLICATION

The cables are designed for CCTV, security, smoke detection and evacuation monitoring applications, where continued functionality is required during a fire situation. Due to the zero halogen low smoke construction, this cable is ideal for use in public, commercial and industrial environments.

STANDARDS

Basic design adapted to MIL-C-17

FIRE PERFORMANCE

Flame Retardance (Single Vertical Wire Test)**	EN 60332-1-2; IEC 60332-1-2; BS EN 60332-1-2; VDE 0482-332-1 ; NBN C 30-004 (cat. F1); NF C32-070-2.1(C2); CEI 20-35/1-2; EN 50265-2-1*; DIN VDE 0482-265-2-1*
Reduced Fire Propagation (Vertically-mounted bundled wires & cable test)**	EN 60332-3-22 (cat. A); IEC 60332-3-22; BS EN 60332-3-22; VDE 0482-332-3; NBN C 30-004 (cat. F2); NF C32-070-2.2(C1); CEI 20-22/3-4; EN 50266-2-4*; DIN VDE 0482-266-2-4

Note: Asterisk ** denotes that the standard compliance is optional, depending on the oxygen index of the PVC compound and the cable design.

CABLE CONSTRUCTION

Conductors: Bare copper copper wire, solid according to IEC(EN) 60228 class 1.

Insulation: Foamed PE compound.

Screen1: Aluminium/polyester or aluminium tape.

Screen2: Tinned copper wire braid.

Outer Sheath: Thermoplastic PVC compound. UV resistance, hydrocarbon resistance, oil resistance, anti rodent and anti termite properties can be offered as option. Compliance to fire performance standard (IEC 60332-1, IEC 60332-3, UL 1581, UL 1666 etc) depends on the oxygen index of the PVC compound and the overall cable design. LSPVC can also be provided upon request.

PHYSICAL AND THERMAL PROPERTIES

Temperature Range During Operation (Fixed State): -30°C - +70°C



Temperature Range During Installation (Mobile State): -5°C - +60°C

Minimum Bending Radius: 8 X Overall Diameter

ELECTRICAL PROPERTIES

IMPEDANCE	75±5Ω
CAPACITANCE	54 NF/KM
Velocity ratio(%)	82
Insulation resistance	>5000 Mohm.Km
Shield coverage	AL FOIL(100%)+AL 70%
DC resistance	
Inner conductor	23.1 Ω/km
Outer conductor	31 Ω/km

ATTENUATION

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100ft)
50	5.0	1.5
100	6.4	1.96
200	9.2	2.8
500	14.5	4.4
600	15.9	4.9
800	17.7	5.4
1000	21.9	6.7
1350	24.9	7.6
1750	29.0	8.8
2050	33.1	10.1
2400	36.4	11.1

RETURN LOSS

Frequency(MHz)	Return Loss (dB)
30-300	>28dB
300-600	>24dB
600-900	>22dB

CONSTRUCTION PARAMETERS

Cable Code	Conductor Diameter	Nominal Insulation Diameter	Nominal Screen No.x Diameter	Nominal Overall Diameter	Approx. Weight
	mm	mm	No. x mm	mm	kg/km
FGD RG6 A/U	1.02	4.57 ± 0.20	96 x 0.12	7.00	81.6



Rated Voltage



Standard



Flame Retardancy**
NF C32-070-2.1(C2)
IEC60332-1-2/EN50265-2-1

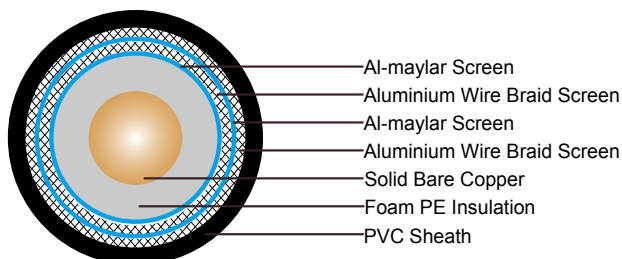


Reduced Fire Propagation**
NF C32-070-2.2(C1)
IEC60332-3-22/EN50266-2-4





RG6 Quad Shield



APPLICATION

These 75Ω coaxial cables are suitable for installation on board of ships and other indoor marine environments.

STANDARDS

Basic design adapted to MIL-C-17

FIRE PERFORMANCE

Flame Retardance (Single Vertical Wire Test)**	EN 60332-1-2; IEC 60332-1-2; BS EN 60332-1-2; VDE 0482-332-1 ; NBN C 30-004 (cat. F1); NF C32-070-2.1(C2); CEI 20-35/1-2; EN 50265-2-1*; DIN VDE 0482-265-2-1*
Reduced Fire Propagation (Vertically-mounted bundled wires & cable test)**	EN 60332-3-22 (cat. A); IEC 60332-3-22; BS EN 60332-3-22; VDE 0482-332-3; NBN C 30-004 (cat. F2); NF C32-070-2.2(C1); CEI 20-22/3-4; EN 50266-2-4*; DIN VDE 0482-266-2-4

Note: Asterisk ** denotes that the standard compliance is optional, depending on the oxygen index of the PVC compound and the cable design.

CABLE CONSTRUCTION

Conductors: 18AWG bare copper wire, solid according to IEC 60228 class 1.

Insulation: Foam PE.

Screen1: Aluminium-maylar.

Screen2: Aluminium wire braid.

Screen3: Aluminium-maylar.

Screen4: Aluminium wire braid.

Outer Sheath: Thermoplastic PVC compound. UV resistance, hydrocarbon resistance, oil resistance, anti rodent and anti termite properties can be offered as option. Compliance to fire performance standard (IEC 60332-1, IEC 60332-3, UL 1581, UL 1666 etc) depends on the oxygen index of the PVC compound and the overall cable design. LSPVC can also be provided upon request.

PHYSICAL AND THERMAL PROPERTIES

Temperature Range: -30°C - +75°C

Minimum Bending Radius: 815 X Overall Diameter

ELECTRICAL PROPERTIES

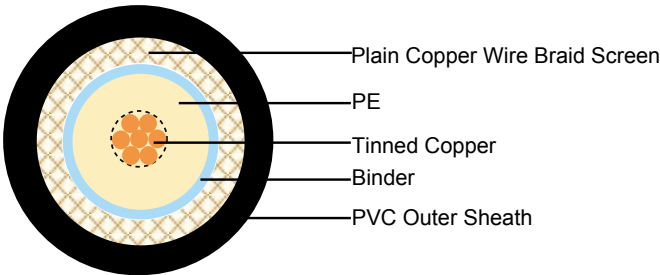
AWG		18
Nominal Conductor Diameter	mm	1.0
Impedance	Ω	75+/-5
Nominal Attenuation@100MHz	dB/100m	6.9
Nominal Attenuation@200MHz	dB/100m	9.0
Nominal Attenuation@300MHz	dB/100m	11.8
Nominal Attenuation@400MHz	dB/100m	13.1
Nominal Attenuation@500MHz	dB/100m	15.4
Nominal Attenuation@900MHz	dB/100m	21.5
Nominal Attenuation@1700MHz	dB/100m	29.4
Capacitance	pF/m	53.5
Velocity of Propagation	%	83
Conductor DCR	Ω/km	21.4
Shield DCR	Ω/km	7.5
Inductance	μH/m	0.32
Time Delay	ns/m	4

CONSTRUCTION PARAMETERS

Cable Code	Nominal Inner Conductor Diameter	Nominal Insulation Thickness	Nominal Sheath Thickness	Nominal Overall Diameter	Nominal Weight
	mm	mm	mm	mm	kg/km
FGD RG6 A/U CWB	1.0	1.8	1.2	10.8	181
FGD RG6 A/U SWB	1.0	1.8	1.2	10.8	177
FGD RG6 A/U SWA	1.0	1.8	1.2	11.8	267



Flame Retardant RG11 A/U Coaxial Cables



APPLICATION

The cables are designed for CCTV, security, smoke detection and evacuation monitoring applications, where continued functionality is required during a fire situation. Due to the zero halogen low smoke construction, this cable is ideal for use in public, commercial and industrial environments.

STANDARDS

Basic design adapted to MIL-C-17

FIRE PERFORMANCE

Flame Retardance (Single Vertical Wire Test)**	EN 60332-1-2; IEC 60332-1-2; BS EN 60332-1-2; VDE 0482-332-1 ; NBN C 30-004 (cat. F1); NF C32-070-2.1(C2); CEI 20-35/1-2; EN 50265-2-1*; DIN VDE 0482-265-2-1*
Reduced Fire Propagation (Vertically-mounted bundled wires & cable test)**	EN 60332-3-22 (cat. A); IEC 60332-3-22; BS EN 60332-3-22; VDE 0482-332-3; NBN C 30-004 (cat. F2); NF C32-070-2.2(C1); CEI 20-22/3-4; EN 50266-2-4*; DIN VDE 0482-266-2-4

Note: Asterisk ** denotes that the standard compliance is optional, depending on the oxygen index of the PVC compound and the cable design.

CABLE CONSTRUCTION

Conductors: Tinned copper wire, stranded according to IEC(EN) 60228 class 2.

Insulation: Low density PE.

Overall Screen: Plain copper wire braid

Outer Sheath: Thermoplastic PVC compound. UV resistance, hydrocarbon resistance, oil resistance, anti rodent and anti termite properties can be offered as option. Compliance to fire performance

standard (IEC 60332-1, IEC 60332-3, UL 1581, UL 1666 etc) depends on the oxygen index of the PVC compound and the overall cable design. LSPVC can also be provided upon request.

PHYSICAL AND THERMAL PROPERTIES

Temperature Range During Operation (Fixed State): -30°C - +70°C

Temperature Range During Installation (Mobile State): -5°C - +60°C

Minimum Bending Radius: 8 X Overall Diameter

ELECTRICAL PROPERTIES

IMPEDANCE	75±5Ω
CAPACITANCE	67 NF/KM
Velocity ratio(%)	66
Insulation resistance	>2000 Mohm.Km
Shield coverage	97%
DC resistance	
Inner conductor	20.5 Ω/km
Outer conductor	4.5 Ω/km

ATTENUATION

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100ft)
50	4.2	1.28
100	6.2	1.89
200	9.3	2.84
400	13.8	4.21
500	15.5	4.73
600	17.1	5.21
860	20.1	6.13
1000	23.4	7.13

RETURN LOSS

Frequency(MHz)	Return Loss (dB)
30-300 MHz	>30dB
300-600 MHz	>27dB
600-900 MHz	>25dB



CONSTRUCTION PARAMETERS

Cable Code	Conductor Diameter	Nominal Insulation Diameter	Nominal Screen No.x Diameter	Nominal Overall Diameter	Approx. Weight
	mm	mm	No. x mm	mm	kg/km
FGD RG11 A/U	7 x 0.40	7.25 ± 0.18	192 x 0.18	10.3 ± 0.18	150



Rated Voltage



Standard



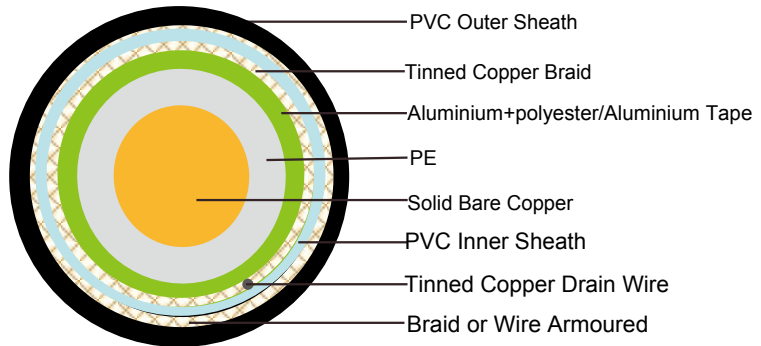
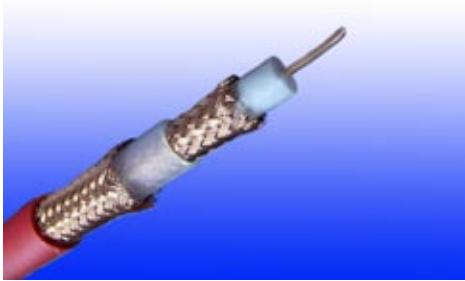
Flame Retardancy**
NF C32-070-2.1(C2)
IEC60332-1-2/EN50265-2-1



Reduced Fire Propagation**
NF C32-070-2.2(C1)
IEC60332-3-22/EN50266-2-4



Flame Retardant RG11 A/U CWB/SWB/SWA Armoured Coaxial Cables



APPLICATION

These 75Ω coaxial cables are suitable for installation on board of ships and other indoor marine environments.

STANDARDS

Basic design adapted to MIL-C-17

FIRE PERFORMANCE

Flame Retardance (Single Vertical Wire Test)**	EN 60332-1-2; IEC 60332-1-2; BS EN 60332-1-2; VDE 0482-332-1 ; NBN C 30-004 (cat. F1); NF C32-070-2.1(C2); CEI 20-35/1-2; EN 50265-2-1*; DIN VDE 0482-265-2-1*
Reduced Fire Propagation (Vertically-mounted bundled wires & cable test)**	EN 60332-3-22 (cat. A); IEC 60332-3-22; BS EN 60332-3-22; VDE 0482-332-3; NBN C 30-004 (cat. F2); NF C32-070-2.2(C1); CEI 20-22/3-4; EN 50266-2-4*; DIN VDE 0482-266-2-4

Note: Asterisk ** denotes that the standard compliance is optional, depending on the oxygen index of the PVC compound and the cable design.

CABLE CONSTRUCTION

Conductors: 14AWG solid bare copper.

Insulation: Low density PE compound.

Screen1: Aluminium/polyester or aluminium tape.

Screen2: Tinned copper braid.

Inner Sheath: Low smoke and halogen-free polyolefin, coloured black.

Armour:

CWB: Copper Wire Braid

SWB: Steel Wire Braid

SWA: Steel Wire Armour

Outer Sheath: Thermoplastic PVC compound. UV resistance, hydrocarbon resistance, oil resistance, anti rodent and anti termite properties can be offered as option. Compliance to fire performance



standard (IEC 60332-1, IEC 60332-3, UL 1581, UL 1666 etc) depends on the oxygen index of the PVC compound and the overall cable design. LSPVC can also be provided upon request.

PHYSICAL AND THERMAL PROPERTIES

Temperature range during operation (fixed state): -30°C - +75°C

Minimum bending radius: 15 x Overall Diameter

ELECTRICAL PROPERTIES

AWG		14
Nominal Conductor Diameter	mm	1.6
Impedance	Ω	75+/-5
Nominal Attenuation@100MHz	dB/100m	4.5
Nominal Attenuation@270MHz	dB/100m	7.6
Nominal Attenuation@540MHz	dB/100m	10.8
Nominal Attenuation@750MHz	dB/100m	12.8
Nominal Attenuation@1000MHz	dB/100m	14.8
Capacitance	pF/m	53.5
Velocity of Propagation	%	83
Conductor DCR	Ω/km	8.5
Shield DCR	Ω/km	12.1
Inductance	μH/m	0.32
Time Delay	ns/m	4

CONSTRUCTION PARAMETERS

Cable Code	Nominal Inner Conductor Diameter	Nominal Insulation Thickness	Nominal Sheath Thickness	Nominal Overall Diameter	Nominal Weight
	mm	mm	mm	mm	kg/km
FGD RG11 A/U CWB	1.6	2.7	1.7	15.2	349
FGD RG11 A/U SWB	1.6	2.7	1.7	15.2	344
FGD RG11 A/U SWA	1.6	2.7	1.7	16.2	468



300/500V

Rated Voltage



MIL-C-17

Standard



Flame Retardancy**
NF C32-070-2.1(C2)
IEC60332-1-2/EN50265-2-1



Reduced Fire Propagation**
NF C32-070-2.2(C1)
IEC60332-3-22/EN50266-2-4