

SEMIFCABLE — Semi-Finished Coaxial Cable

Unjacketed Coax Cores From RG174 To RG11

Semi-finished coaxial cable includes the conductor, the dielectric and the shielding, but not the outer jacket. That is what makes it useful to a cable plant: the electrical design is finished and verified, while jacketing, colour, print legend and fire classification are still yours to decide. Conductor options run across bare copper, copper-clad steel, copper-clad aluminium and copper-clad aluminium-magnesium on the same geometry.

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Semi-Finished Coaxial Cable RG174

RG174 is the small-diameter 50 ohm core used inside GPS modules, wireless antennas and test leads, where routing space matters more than power handling. The insulation diameter is about 1.52 mm and the cable runs from DC to 1 GHz at roughly 14 dB/100m at 100 MHz. Supplied without a jacket, it is bought by assembly manufacturers who add their own jacket, shielding upgrade or overmoulded connector.

Parameter	Value
Impedance	50 Ω
Capacitance	Approx. 100 pF/m
Velocity Factor	~66% solid PE / ~78% foamed PE
Attenuation	Approx. 14 dB/100m @ 100 MHz
Voltage Rating	300 V
Frequency Range	DC – 1 GHz
Insulation Diameter	Approx. 1.52 mm
Reel Length	500 m or 1000 m, custom lengths available
Reel Type	Plastic or ABS reels
Net Weight	Approx. 8–12 kg per 1000 m
Outer Packaging	Plastic film wrap, optional carton or pallet

Full page: <https://semifcable.com/products/coaxial-cable-rg174.html>

Foamed Insulation Coaxial Cable Core

This is the earliest stage we sell: the inner conductor with its foamed insulation extruded, cooled and gauged, but no shielding, braiding or jacket yet. Plants buy it when they already own braiding and jacketing capacity but not a foaming extruder, which is the hardest part of the coaxial process to run well. Cell size, insulation diameter and concentricity are controlled and monitored on line, so the core is ready to take foil and braid as soon as it reaches your shop.

Parameter	Value
Structure	Inner conductor + foamed insulation layer
Conductor Material	Copper or CCA
Insulation Material	PE or FEP, foaming grade
Foaming Method	Physical (gas injection) or chemical (blowing agent)
In-Process Control	Foam cell size and density, insulation diameter uniformity, surface smoothness
On-Line Testing	Continuous insulation thickness and concentricity monitoring
Next Stages	Foil or copper tape wrapping, braiding, jacket extrusion, marking and coiling
Shielding	Not applied
Outer Jacket	Not applied

Full page: <https://semifcable.com/products/foamed-insulation-coaxial-cable.html>

Semi-Finished Coaxial Cable RG7

RG7 sits between RG6 and RG11: a larger conductor and dielectric than a drop cable, but easier to handle than full trunk cable. Loss is around 4.2 dB/100m at 100 MHz over a 5 to 1000 MHz range, which is why it is specified for CATV backbone runs and commercial RF distribution. Supplied as a core, it goes straight onto your jacketing line with the shield configuration you ordered.

Parameter	Value
Characteristic Impedance	75 $\pm$ 3 Ω
Capacitance	Approx. 50 pF/m
Nominal Velocity of Propagation	85%
Attenuation	About 4.2 dB/100m @ 100 MHz
DC Resistance	Approx. 5.5 Ω /100m (conductor)
Frequency Range	5 MHz – 1000 MHz
Voltage Rating	300 V
Core Length	500 m or 1000 m coils
Reel Type	Wooden or plastic reels
Weight per Reel	Approx. 18–22 kg per 500 m
Outer Jacket	Not included

Full page: <https://semifcable.com/products/coaxial-cable-rg7.html>

Semi-Finished Coaxial Cable RG8

RG8 is the 50 ohm heavy RF core: solid conductor, foamed insulation and the shield configuration you specify, with the outer jacket left for your line. A maximum operating voltage of 1900 V RMS and a DC to 1 GHz working range put it in two-way radio, base station feeds and industrial high-frequency links. Manufacturers order the core when the finished cable has to carry their own jacket compound, colour and branding.

Parameter	Value
Characteristic Impedance	50 Ω
Capacitance	~26.4 pF/ft (~86.6 pF/m)
Velocity of Propagation	66–80% depending on dielectric
Attenuation @ 100 MHz	~2.2 dB/100 ft (~7.2 dB/100m)
Maximum Operating Voltage	1,900 V RMS
Frequency Range	DC – 1 GHz or higher
Length per Reel	300 m / 500 m / 1000 m, customisable
Reel Type	Plastic, ABS or wooden reels
Net Weight	~25–35 kg per 500 m
Outer Jacket	Not included

Full page: <https://semifcable.com/products/coaxial-cable-rg8.html>

Semi-Finished Coaxial Cable RG11

RG11 is the large-conductor member of the 75 ohm family, and in semi-finished form it gives cable makers a trunk-grade core without the foaming line. Loss is about 4.8 dB/100m at 100 MHz and conductor DC resistance around 3.5 ohms per 100 m, which is why it goes into long CATV runs and FTTH hybrid builds where an RG6 drop would not reach. The jacket is left off so the same core can be finished for indoor conduit, outdoor aerial or direct-burial duty.

Parameter	Value
Characteristic Impedance	75 $\pm$ 3 Ω
Capacitance	Approx. 50 pF/m
Nominal Velocity of Propagation	Approx. 85%
Attenuation	Approx. 4.8 dB/100m @ 100 MHz

Frequency Range	DC – 1 GHz
DC Resistance (Conductor)	Approx. 3.5 Ω /100m for solid copper
Voltage Rating	300 V
Core Length per Reel	500 m or 1000 m, customised available
Reel Type	Heavy-duty plastic, wooden or ABS
Net Weight	Approx. 24–30 kg per 500 m
Outer Jacket	Not included

Full page: <https://semifcable.com/products/coaxial-cable-rg11.html>

Semi-Finished Coaxial Cable RG6

This is the RG6 cable core only: conductor plus foamed polyethylene dielectric, with foil and braid shielding applied to your specification and no outer jacket. Cable plants buy it when they want to run their own jacketing line, apply their own print legend and stay in control of CPR or regional fire classification. Conductor options cover solid bare copper, copper-clad steel, copper-clad aluminium and copper-clad aluminium-magnesium so you can price the core to the market you sell into.

Parameter	Value
Characteristic Impedance	75 $\pm$ 3 Ω
Capacitance	Approx. 50 pF/m
Nominal Velocity of Propagation	Approx. 85%
Attenuation	Approx. 6.5 dB/100m @ 100 MHz
Frequency Range	DC – 1 GHz
DC Resistance (Conductor)	Approx. 6.5 Ω /100m
Voltage Rating	300 V
Core Length per Reel	500 m or 1000 m, custom lengths available
Reel Type	Wooden or plastic reels
Net Weight	Approx. 15–22 kg per 500 m reel
Outer Jacket	Not included

Full page: <https://semifcable.com/products/coaxial-cable-rg6.html>

Semi-Finished Coaxial Cable RG59

RG59 in semi-finished form is the conductor, foamed PE dielectric and optional shield layers with the outer jacket left off. It is the working core behind analogue video and CCTV cable, and it is bought by plants that finish the cable themselves — sometimes as plain coax, sometimes siamesed with a power pair. Because the jacket is not yet on, the same core can end up as a PVC indoor cable, an LSZH cable for public buildings or a PE cable for outdoor runs.

Parameter	Value
Characteristic Impedance	75 Ω
Capacitance	Approx. 50 pF/m
Nominal Velocity of Propagation	85%
Attenuation	Approx. 7.0 dB/100m @ 100 MHz
Frequency Range	DC – 750 MHz
DC Resistance (Conductor)	Approx. 6.5 Ω /100m
Voltage Rating	300 V
Core Length per Reel	500 m or 1000 m, custom lengths available
Reel Type	Wooden or plastic reels
Net Weight	Approx. 14–20 kg per 500 m reel

Outer Jacket	Not included
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Full page: <https://semifcable.com/products/coaxial-cable-rg59.html>

All figures are the published specification for each product. Values outside these tables are confirmed in writing before order rather than estimated.
Cores are suppliedunjacketed and unprinted unless otherwise agreed.