

A-Z Glossary of Cable & Wire Terms

Plain-English definitions of the cable and wiring terms you will come across.

The cable and wiring world is full of jargon. Here are the terms you are most likely to meet, in plain English.

Term	Meaning
Ampacity	The maximum current a conductor can carry continuously without overheating.
Armour	A metal layer (wire or tape) over a cable for mechanical protection.
AWG	American Wire Gauge - a US sizing system; a lower number means a thicker wire.
Bandwidth	The data-carrying capacity of a communication cable, in MHz or Mbps.
Bending radius	The tightest curve a cable can take without damage; quoted as a multiple of its diameter.
Conductor	The metal core (copper or aluminium) that actually carries the current.
Core	One insulated conductor inside a cable; a multicore cable has several.
Cross-section (sq mm)	The conductor's cross-sectional area - the standard way wire size is stated in India.
Derating	Reducing a wire's rated current for heat or grouping conditions.
Dielectric strength	The maximum voltage insulation can withstand before it breaks down.
Earthing	Connecting metal parts to ground so faults trip protection safely.
EMI / EMC	Electromagnetic interference / compatibility - noise and a cable's resistance to it.
FR	Flame Retardant - insulation that resists the spread of flame.
FRLS	Flame Retardant Low Smoke - FR plus reduced smoke and acid gas.
HFRR / LSZH	Halogen-Free Flame Retardant / Low Smoke Zero Halogen - very low smoke, no toxic halogen gas.
HR-FR-LSH	Heat-Resistant Flame-Retardant Low-Smoke Halogen wire.
Impedance	A conductor's total opposition to alternating current, in ohms.
Insulation	The non-conductive layer around a conductor that contains the current.
ISI mark	The BIS certification mark showing a product meets the relevant Indian Standard.
Multicore	A cable with two or more insulated cores under one sheath.
Ohm	The unit of electrical resistance / impedance.
PVC	Polyvinyl chloride - the most common house-wire insulation material.
Sheath	The overall outer protective jacket of a cable.
Short circuit	An unintended low-resistance path causing a large fault current.

Term	Meaning
Stranded conductor	A conductor made of many thin wires for flexibility.
Voltage grade	The maximum working voltage a cable is rated for, e.g. 1100 V.
Voltage drop	The loss of voltage along a cable run; kept within ~3% for good performance.
XLPE	Cross-linked polyethylene - a tough, heat-resistant insulation for power cables.

Need a term that isn't here? The FAQ section answers many of these in more depth.