



Abbreviations for insulating and jacket materials

According to VDE 0207 or DIN 76722

DIN/VDE- Abbreviation	HAR		Symbol	Description
	Cores	Jacket		
Y	V	V	PVC	Polyvinyl chloride
Yw	V2	V2	PVC	heat-resistant polyvinyl chloride (+90°C or +105°C)
Yk:	V3	V3	PVC	cold-resistant polyvinyl chloride (-40°C)
X	V4	V4	xPVC	cross-linked polyvinyl chloride
Yö	V5	V5	öPVC	oil-resistantPVC
2X	Z	X	VPE	cross-linked polyethylene
2Y	E		PE	Polyethylene as LDPE or HDPE(Low/High Density)
3Y	Q3	Q3	PS	Polystyrene
4Y	Q4	Q4	PA	Polyamide
5Y		E4	PTFE	Polytetrafluoroethylene such as Teflon®.
6Y		E5	FEP	Perfluoroethylene propylene
7Y		E6	ETFE	Ethylene tetrafluoroethylene such as Tefzel®
9Y		E7	PP	Polypropylene
10Y	Q6		PVDF	Polyvinylidene fluoride such as Kynar® or Dyflor®
11Y		Q	PUR	polyurethane
12Y			TPE-E	Polyeste elastomer e.g. Hytrel®
13Y			TPE	Polyester elastomer
18Y			TPE-O	Polyolefin elastomer
31Y			TPE-S	Polystyrene elastomer
41Y			TPE-A	Polyamide elastomer
91Y			TPE-O	Polyolefin elastomer
G	R	R	NR/NRB	Natural rubber, styrene-butadiene rubber (Gummmi)
2G			SIR	Silicone rubber
GL				Glass fiber or glass fiber braid, (silicone varnish)
T		T		Textile braiding
T		T2 .. T6		Textile braiding and layers, from banding to fire-retardant impregnated
3G	B	B	EPR	Ethylene-propylene polymers
4G	G	B2	EVA	Ethylene-vinyl acetate copolymer
5G	N2	N	CR	Polychloroprene compound
		N2	CR	Polychloroprene compound for welding pipes
		N4	CR	Polychloroprene compound heat resistant
		N8		Special polychloroprene compound, water-resistant
6G		N4	CSM	chlorosulfonated polyethylene compound e.g. Hypalon®
7G	N6	N6	FKM	Fluoroelastomer e.g. Viton®
H			XPE	non-crosslinked halogen-free polymer blend
HX			HXPE	cross-linked halogen-free polymer blend

Shielding and armoring

- Shielding is the term used to describe an electrically conductive enclosure around a core/strand system with the aim of preventing electrical interference fields or
- Armoring is the term used to describe an enclosure around a core/stranding assembly or an entire cable with the aim of protecting it from mechanical and/or chemical influences.

Abbreviation	Structure	Abbreviation Description	Properties
C	Braid of copper wires	Conductive copper wires that are braided and achieve an optical coverage of 75 - 85% depending on the braiding density	Cable remains flexible and can be moved in any direction without restricting the electrical shielding.
S	Steel wire braid	Conductive steel wires that are braided and, depending on the braiding density, achieve an optical coverage of 75 - 85%	Can be used both as mechanical protection and as shielding - but here more against magnetic than electromagnetic fields.
D	Laying with parallel copper wires	Spiral routing with parallel copper wires, which enables an optical coverage of almost 100%	Very flexible, the high shielding rate only applies if the cable is not moved or only moved a little
F or (ST)	Copper or aluminum vapor-deposited foil	A plastic foil is vaporized with aluminium or copper, which enables almost 100% electrical shielding	Inflexible, but best electrical properties - Mainly used for data cables and network cables

In addition to those mentioned above, there are many other reinforcement options that are used in the area of signal and railroad cables, e.g. steel tape reinforcement, aluminum tape reinforcement, lead sheathing, non-metallic rodent protection - e.g. Kevlar fibers.