



RUBBER & SILICON CABLES

Application: These cables find application in a wide variety of industries ranging from nuclear and thermal power stations, defence, windmills, mining, marine & offshore applications, railways, cranes & reeling applications, lifts and other heavy duty equipment.

Types and Sizes: Single & multi core from 0.50 sq.mm to 630 sq. mm for voltage grade upto 3.3 KV (Unscreened)

Conductor: Copper – Solid, Stranded (Circular) or Flexible – Bare or Tinned

Separator: Polyester tape, Fibre Glass Tape, or any other suitable material tape is applied over conductor

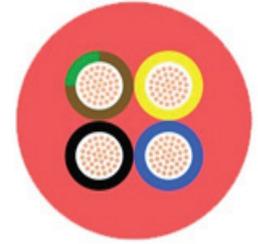
Insulation: General purpose compound Type IE1, Heat resisting compound Type IE2/IE3, flame retardant compound Type IE4, Silicon Rubber Type IE 5. For identification of cores, coloured insulation / numbered printing / numbered polyester tape / coloured proofed RC tape is used

Inner Sheath: General purpose compound Type SE1 / SE2, Heat resisting compound Type SE3/SE4/SE6 (HOFR), Silicon Rubber Type SE-5

Armour: Copper Wire / Stainless Steel/ Fibre Glass Yarn Braiding

Outer Sheath: General purpose compound Type SE1/SE2, Heat resisting compound Type SE3/SE4/SE6 (HOFR), Silicon Rubber Type SE-5. Fibre Glass braid with varnish is also available.

Specification: IS: 9968 (Pt-1), IS 9857, BS: 6500, BS: 7919, IEC: 60502 and designed to meet customer's requirements.



Working temperature for commonly used Elastomeric Insulation & Sheathing compounds

Type of Material	Minimum working temperature (°C)	Maximum temperature for continuous operation (°C)	Maximum temperature for short operation (°C)
Natural Rubber (TRS)	-55	60	200
Ethylene Propylene Rubber (EPR)	-50	90	250
Polychloroprene (PCP)	-40	90	200
Chloro-sulphanated Polyethylene (CSP)	-35	90	250
Silicone Rubber	-55	150/180	350

Single & Multi-Core Flexible Rubber Cables: Voltage Grade 1.1 KV as per IS:9968 (Pt-1) - 1988 Tinned Copper, Elastomeric Insulated & Sheathed

Cross sectional area of conductor (Nominal) (sq. mm.)	Thickness of Insulation (Nominal) (mm)	1 Core		2 Cores		3 Cores		4 Cores		D.C Conductor Resistance at 20° C (Max.) (Ω/km)
		Thickness of sheath (Nominal) (mm)	Outer Diameter (Max.) (mm)							
0.5	0.6	0.8	5.8	0.8	8.3	0.9	8.9	0.9	9.3	40.1
0.75	0.6	0.8	6.0	0.8	8.7	0.9	9.4	0.9	10.0	26.7
1.0	0.6	0.9	6.3	0.9	9.3	0.9	9.7	0.9	10.5	20.0
1.5	0.8	1.0	7.3	1.0	10.9	1.0	11.5	1.1	12.6	13.7
2.5	0.9	1.1	8.0	1.1	12.4	1.1	13.0	1.2	14.3	8.2
4.0	1.0	1.2	9.0	1.2	14.2	1.2	15.0	1.3	16.5	5.1

Single & Multi-Core Flexible Rubber Cables: Voltage Grade 1.1 KV as per IS:9968 (Pt-1) - 1988 Tinned Copper, Elastomeric Insulated & Sheathed

Cross sectional area of conductor (Nominal) (sq. mm.)	Thickness of Insulation (Nominal) (mm)	Thickness of sheath				D.C Conductor Resistance at 20° C (Max.) (Ω/km)
		1 Core (Nominal) (mm)	2 Cores (Nominal) (mm)	3 Cores (Nominal) (mm)	4 Cores (Nominal) (mm)	
6	1.0	1.6	2.0	2.1	2.5	3.39
10	1.2	1.8	2.4	2.5	2.7	1.95
16	1.2	1.9	2.5	2.7	2.9	1.24
25	1.4	2.0	3.2	3.3	3.4	0.795
35	1.4	2.2	3.3	3.4	3.5	0.565
50	1.6	2.4	3.5	3.6	3.7	0.393
70	1.6	2.6	3.6	3.7	3.9	0.277
95	1.8	2.8	3.8	4.0	4.1	0.21
120	1.8	3.0	4.0	4.1	4.3	0.164
150	2.0	3.2	4.2	4.3	4.5	0.132
185	2.2	3.4	4.3	4.5	4.8	0.108
240	2.4	3.5	4.6	4.8	5.1	0.0817
300	2.6	3.5	4.9	5.1	5.4	0.0654
400	2.8	3.8	5.2	5.4	5.8	0.0495
500	3.0	4.0	--	--	--	0.0391
630	3.0	4.1	--	--	--	0.0292

Note:

- Technical Data provided is for Tinned Copper (Class V) conductor
- Details given are for reference only and may be revised without notice.

ELASTOMERIC FIRE SURVIVAL CABLES

Application: Designed to maintain circuit integrity during fire & ensure maximum time for evacuation in case of emergency. Typically used in fire alarm systems, critical circuits and other safety equipment.

Types and Sizes: Single core up to 1000 sq. mm and multicore up to 400 sq. mm with Glass Mica tapping and HOFR / HR Rubber. Cables withstand 650° C for 3 hours (Category A), 750°C for 3 hours (Category B), 950°C for 3 hours (Category C) with resistance to fire with water and mechanical shock (Category CWZ).

Specification: Generally conforming to BS: 7846 or equivalent BS: 6387 Category CWZ, IEC: 60331.

CRD, COMPOSITE & TRAILING CABLES

Application: Reeling & Trailing cables are used in conveyor machinery such as transfer cars, boom stackers, side arm chargers, bulk materials conveyors etc. They find application in almost every industry segment like Steel Mills, Cement plants, Docks, Power Plants, Refineries and Petrochemicals.

Type & Sizes: Multicore cables for voltage grade upto 3.3 KV with anti – twisting textile yarn braiding between inner and outer sheath and HR / HOFR Rubber. Composite construction is also available with power, control & instrumentation cables depending on customer requirements.

Specification: Generally conforming to IS, IEC standards.

OTHER APPLICATIONS FOR RUBBER CABLES

POWER & CONTROL CABLES	INSTRUMENTATION CABLES	MINING CABLES	WINDWILL CABLES
FASTOONING CABLES	WELDING CABLES	MARINE & OFFSHORE CABLES	HIGH TEMPERATURE SILICON CABLES
SPECIAL CABLES FOR NUCLEAR POWER PROJECTS	CABLES FOR HARSH CONDITIONS	CABLES FOR HEAVY DUTY EQUIPMENTS	OTHER SPECIALISED CABLES

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