

**GEMSCAB®**  
CABLES  
THE RIGHT CONNECTION

GEMSCAB

# FLEXIBLE PVC WIRES & CABLES

*Wires For Right Connection*  
AN ISO 9001 : 2000 CERTIFIED COMPANY



"GEMSCAB" has established itself as supplier of Power, Control, Instrumentation cables & flexible wires of various leading customers in industry, projects, domestic, commercial & power network over two decades now.

"GEMSCAB" has developed an extensive range of PVC Flexible wires to meet the requirement of its customers. All the products are manufactured as per IS 694: 1990

"GEMSCAB" is committed to provide quality products & services to its customers.

**CONSTRUCTION DETAIL OF "GEMSCAB" FLEXIBLES WIRES**

**CONDUCTOR** : Electrolytic grade, high conductivity, solid / stranded / flexible, plain / tinned copper conductor as per IS 8130:1984

**INSULATION** : PVC Insulation of heat resistance PVC compound by extrusion process with automatic diameter control.

**SHEATH** : In case of Sheathed flexible wires the outer sheath is provided of PVC by extrusion process with automatic diameter control.

**NOTE** : "GEMSCAB" Flexible wires can also be supplied with HR / FR / FRLS PVC insulation and outer sheath as per the requirement of the customers.

AA : "GEMSCAB" Single Core PVC insulated Flexible Copper Conductor (Unsheathed) heavy duty Electric wires in Voltage grade upto & including 1100 volts as per IS : 694 / 1990 - Supplied in 90 meters.

Conductor Area (Sq.mm)	Conductor Construction No./dia mm	Current Carrying Capacity (AMPS)	Standard Resistance at 20° C (Ohm/km)	Nominal Thickness of Insulation (mm)	Overall Diameter (mm) (Approx)
0.75	24/0.2	7	26.0	0.60	2.50
1.0	14/0.3	12	18.1	0.70	2.80
1.5	22/0.3	16	12.1	0.70	3.10
2.5	36/0.3	22	7.41	0.80	3.70
4	56/0.3	29	4.95	0.80	4.30
6	84/0.3	37	3.30	0.80	5.30
10	80/0.4	45	1.91	1.00	6.70

AA : "GEMSCAB" PVC insulated Unsheathed Single Core Industrial Wires with bright Annealed Bare /Copper Solid/Stranded Conductor as per IS : 694 / 1990 - Supplied in 100 meters.

Conductor Area (Sq.mm)	No. of Strands/ Conductor dia/(mm)	Current Carrying Capacity (AMPS)	Standard Resistance at 20° C (Ohm/km)	Nominal Thickness Of Insulation (mm)	Overall Diameter (mm) (Approx)
1	1/1.13	12	18.10	0.70	2.65
1.5	7/1.53	16	12.10	0.70	3.10
2.5	7/0.67	22	7.41	0.80	3.75
4	7/1.85	29	4.61	0.80	4.30
6	7/1.04	37	3.08	0.80	4.90
10	7/1.35	45	1.83	1.00	6.20
16	7/1.70	60	1.15	1.00	7.30
25	7/2.14	75	0.727	1.20	9.00
35	7/2.52	95	0.524	1.20	10.00
50	19/1.78	125	0.387	1.40	11.90
70	19/2.14	170	0.268	1.40	13.70
95	19/2.52	210	0.193	1.60	15.90
120	37/2.03	235	0.153	1.60	17.60
150	37/2.25	295	0.124	1.80	19.50

**APPLICATIONS**

- **"GEMSCAB"** Flexible wires can be used at 70°C Conductor Temperature.
- **"GEMSCAB"** Flexible wires with HR Insulation Can be Used at 85°C
- **"GEMSCAB"** FR / FRLS Flexible wires can be used for low smoke, less generation of gas & acid, with self extinguishing & flame retarding properties.

BB - **"GEMSCAB"** PVC Insulated Unsheathed Bright Annealed Bare/Flexible Copper Conductor Core Unsheathed Wires for Voltage grade upto 1100 volts as per IS - 694 / 1990. (ISI Mark up to 50 Sq mm) - Supplied in 100 meters.

Conductor Area (Sq.mm.)	Conductor Construction No./dia mm	Current Carrying Capacity (AMPS)	Nominal Thickness of Insulation (mm)	Max. DC Resistance (OHM/km) at 20°C	Overall Diameter (mm) (Approx)
0.50	16/20	4	0.60	39.0	2.2
0.75	24/20	7	0.60	26.0	2.5
1.0	32/20	11	0.60	19.5	2.8
1.5	48/20	14	0.60	13.3	3.1
2.5	80/20	19	0.70	7.98	3.8
4	56/30	26	0.80	4.95	4.4
6	84/30	33	0.80	3.30	5.2
10	80/40	45	1.00	1.91	6.6
16	126/40	60	1.00	1.21	7.8
25	196/40	75	1.20	0.780	9.7
35	276/40	95	1.20	0.554	10.9
50	396/40	125	1.40	0.386	13.2
70	354/50	170	1.40	0.272	14.6
95	484/50	210	1.60	0.206	16.6
120	608/50	235	1.60	0.161	18.5
150	750/50	295	1.80	0.129	21.2
185	925/50	330	2.0	0.106	24.4
240	1221/50	400	2.20	0.0801	27.6
300	1527/50	475	2.40	0.0641	31.2
400	2036/50	550	2.60	0.0486	35.6
500	2540/50	635	2.80	0.0384	38.0
630	3200/50	725	2.80	0.0287	44.0
800	4100/50	840	3.40	0.0224	50.0
1000	5100/50	950	3.40	0.0178	53.0

CC - **"GEMSCAB"** PVC Insulated, PVC Sheathed Bare/Flexible Copper Conductor Multicore Industrial Cables Voltage Grade 100 Volts as per IS 694-1990. (ISI Mark up to 4 sq.mm) - Supplied in 100 meters.

Conductor Area (Sq.mm)	Conductor Construction No./dia mm	Current Carrying Capacity (AMPS)	Max. DC Resistance at 20°C (OHM/Km.)	Nominal Thickness of Insulation (mm)	Approximate		
					2 Core (mm)	3 Core (mm)	4 Core (mm)
0.50	16/20	4	39.0	0.60	6.2	6.6	7.2
0.75	24/20	7	26.0	0.60	6.5	6.9	7.6
1.0	32/20	11	19.5	0.60	6.9	7.3	8.2
1.5	30/25	14	13.3	0.60	7.6	8.2	9.3
2.5	50/25	19	7.98	0.70	9.0	9.6	10.5
4	56/30	26	4.95	0.80	10.3	10.9	12.3
6	84/30	33	3.30	0.80	12.1	12.9	14.3
10	80/40	45	1.91	1.00	16.2	17.2	19.2
16	126/40	60	1.21	1.00	17.4	18.5	20.6
25	196/40	75	0.780	1.20	22.4	24.2	26.9
35	276/40	95	0.554	1.20	25.6	27.4	30.5
50	396/40	125	0.386	1.40	30.6	33.0	36.5
70	354/50	170	0.276	1.40	35.0	37.7	41.7
95	484/50	210	0.206	1.60	40.2	43.5	47.8
120	608/50	235	0.161	1.60	43.0	46.5	51.5

## GEMSCAB PRODUCT RANGE

### HT-XLPE CABLE

- Upto 33 kv E/UE, Single Core upto 1000 Sq.mm
- Upto 33 kv E/UE, Multicore upto 400 Sq.mm

### LT POWER CABLES-PVC

- Single Core Armoured/Unarmoured upto 1000 Sq.mm
- Multicore Armoured/Unarmoured upto 630 Sq.mm

### LT POWER CABLES-XLPE

- Single core Armoured/Unarmoured upto 1000 Sq.mm
- Multicore Armoured/Unarmoured upto 630 Sq.mm

### LT CONTROL CABLES

- Upto 61 Cores Armoured/Unarmoured in 1.5 & 2.5 Sq.mm Solid/Stranded Circular Copper Conductor

### FLEXIBLE WIRES

- Single Core upto 400 Sq.mm
- Multicore upto 150 Sq.mm

### INSTRUMENTATION

- Paired, Triodes or Units etc. with Aluminium Myler tape for Individual and/or overall shielding upto 50 pairs.
- General Purpose/Heat Resistance PVC Insulated
- General Purpose/Heat Resistance/Flame Retardant Low Smoke PVC Sheathing (FRLS)
- Copper/Aluminium Conductors.



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