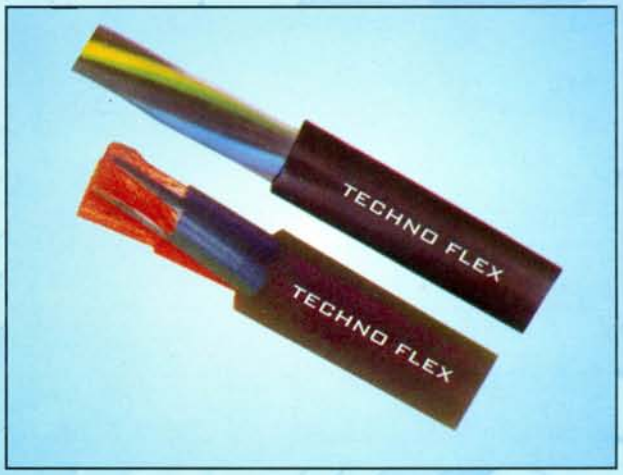
TECHNO FLEX®
CABLES

IS-694
IS-1554 (PART-1)

Techno Flex manufacture high quality cables according to **IS : 694 : 1990** for house hold and industrial lightening purpose. We never compromise to use sub-standard raw material instead of high standard & hence *Techno Flex* consistently remain with the high degree of quality.

These cables are suitable for fixed wiring, flexible operation & for use on AC single phase systems for rated voltage up to and including 1100 Volts. These cables can be used on DC systems for rated voltage up to & including 1500 Volts to earth.



Flexible Cables

CONSTRUCTION DETAILS :-

CONDUCTOR : Solid / Stranded / Multistranded high conductivity annealed copper wires to meet the requirements according to IS : 8130 : 1984. Copper gets corrode in the atmosphere where sulphur fumes are present, in such conditions Tinned Copper should be used.

INSULATION :-

TYPE A : Elastomer PVC suitable to withstand maximum rated continuous operating temperature upto 70°C of conductor & the rated voltage upto and including 1100 Volts.

TYPE B : Insulation suitable to withstand maximum rated continuous operating temperature upto 70°C of conductor & the rated voltage above 1100 Volts.

TYPE C : Heat resisting compound for maximum rated conductor temperature 85°C to the rated voltage upto & including 1100, Volts. We always print HR85

CORE IDENTIFICATIONS : Insulation colour are in accordance with IS : 694 : 1990 specification, as under :

No Of Cores	Cables For Fixed Wiring	Flexible Cables
01	Red, Black, Yellow, Blue, White or Gray	Red, Black, Yellow, Blue, White or Gray
02	Red & Black	Red & Black
03	Red, Yellow, Blue	Red, Black, Green
04	Red, Yellow, Blue, Black	Red, Yellow, Blue, Green
05	Red, Yellow, Blue, Black, Gray	Red, Yellow, Blue, Black, Green
06 & Above	Two adjacent cores Blue & Yellow counting & direction cores and remaining Grey in each layer or printing numbers over each cores or by different colours.	

LAYING UP : In case of Multicore cables, cores are laid up with suitable equidistance lay at right hand side direction.

SHEATH : The over coating of PVC over the single core insulated wire or multicore laid up wires is called the sheath. The compound should be as per IS : 5831 : 1984 but dimension should be according to IS : 694 : 1990. We consider the customer requirement according to their special use.

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HOUSE WIRE

Techno Flex Single core solid / stranded bright annealed (class-1) copper conductor, PVC insulated unsheathed cables for 1100 Volts, confirming to IS : 694 : 1990, with ISI mark.

Area sq.mm	No Of Strand Dia Of Wires	Insulation Thickness mm	Overall Dia. (approx) mm	DC Resistance At 20°C Ω / KM max.	Current Rating Amp.
1.0	1 / 1.12	0.70	2.60	18.1	10.0
1.5	1 / 1.38 3 / 0.80	0.70	2.90 3.20	12.1	13.0
2.5	1 / 1.78 3 / 1.04	0.80	3.40 3.80	7.41	20.0
4.0	1 / 2.24 7 / 0.85	0.80	3.90 4.20	4.61	26.0
6.0	1 / 2.78 7 / 1.04	0.80	4.40 4.80	3.08	35.0
10.0	7 / 1.35	1.00	6.10	1.83	44.0
16.0	7 / 1.70	1.00	7.20	1.15	55.0
25.0	7 / 2.14	1.20	8.90	0.727	75.0
35.0	7 / 2.52	1.20	10.0	0.524	90.0
50.0	7 / 3.0 19 / 1.83	1.40	11.9 12.2	0.387	120.0
70.0	19 / 2.16	1.40	13.8	0.268	150.0
95.0	19 / 2.52	1.60	16.0	0.193	175.0

PANEL BOARD WIRE

Techno Flex Flexible unsheathed cables for the use in **industrial & panel board wiring** by the using of bright annealed (class-5) bare copper conductor, confirming to IS : 694 : 1990, with ISI mark.

Area sq.mm	No. Of Strand & Dia. Of Wires mm	Overall Conductor Dia. mm	Insulation Thickness mm	Overall Cable Dia. (approx) mm	DC Resistance At 20°C Ω / KM max.	Current Rating Amp.
0.50	16 / 0.20	1.00	0.60	2.20	39.0	4.0
0.75	24 / 0.20	1.20	0.60	2.40	26.0	7.0
1.0	32 / 0.20	1.35	0.60	2.60	19.5	11.0
1.5	48 / 0.20	1.68	0.60	2.90	13.3	14.0
2.5	80 / 0.20	2.08	0.70	3.50	7.98	19.0
4.0	56 / 0.30	2.58	0.80	4.20	4.95	26.0
6.0	84 / 0.30	3.40	0.80	5.10	3.30	33.0
10.0	63 / 0.45	4.30	1.00	6.50	1.91	45.0
16.0	101 / 0.45	5.60	1.00	7.80	1.21	60.0
25.0	158 / 0.45	6.90	1.20	9.30	0.78	75.0
35.0	220 / 0.45	8.20	1.20	10.8	0.554	95.0
50.0	315 / 0.45	10.0	1.40	13.0	0.386	125.0
70.0	343 / 0.51	12.0	1.60	15.6	0.272	170.0
95.0	466 / 0.51	14.0	1.80	18.0	0.206	210.0
120.0	588 / 0.51	15.8	2.00	20.2	0.161	235.0

NOTE : Cable above 50 sq.mm are not included in IS : 694, but it is as per IS : 2465.

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Techno Flex Flexible Multicore sheathed cables are used for **DOMESTIC & INDUSTRIAL** purpose by the use of bright annealed copper conductor and high class PVC to confirming IS : 694 : 1990, with ISI mark.

Area sq.mm	No. Of Strand & Dia. Of Wires	Overall Conductor. Dia.	Insulation Thickness mm	Overall Cable Dia. (approx) mm	DC Resistance At 20°C Ω / KM max.	Sheath Thickness in mm Nominal			Overall Diameter (approx.) mm			Current Rating Amp.
						2 Core	3 Core	4 Core	2 Core	3 Core	4 Core	
6.0	84 / 0.30	3.4	0.80	5.10	3.30	1.10	1.10	1.20	12.5	13.2	14.8	33.0
10.0	63 / 0.45	4.3	1.00	6.50	1.91	1.20	1.20	1.30	15.5	16.6	18.5	45.0
16.0	101/0.45	5.6	1.00	7.80	1.21	1.30	1.30	1.40	18.3	19.6	21.8	60.0
25.0	158/0.45	6.9	1.20	9.30	0.78	1.40	1.50	1.60	21.5	23.2	25.8	75.0
35.0	220/0.45	8.2	1.20	10.8	0.554	1.50	1.60	1.70	24.6	26.9	29.7	95.0
50.0	315/0.45	10.0	1.40	13.0	0.386	1.60	1.70	1.80	29.3	31.6	35.2	125.0

Techno Flex Flexible Multicore Cables used for **Domestic & Industrial use**, manufactured with bright annealed copper, PVC insulated and sheathed cable for working 1100 voltage and to confirming to IS : 694 : 1990 with ISI mark. **(2 Core to 30 Core)**

Area in sq.mm.		0.50	0.75	1.00	1.50	2.50	4.00
Construction : No. of wires / Dia.		16 / 0.20	24 / 0.20	32 / 0.20	48 / 0.20	80 / 0.20	56 / 0.30
Overall Conductor Diametre		1.00	1.20	1.35	1.68	2.08	2.58
Average insulation thickness in mm		0.6	0.6	0.6	0.6	0.7	0.8
Core Dia. in mm		2.2	2.4	2.6	2.9	3.5	4.2
No Of Cores	Sheath Dimension						
2	Avg. Sheath thickness in mm	0.9	0.9	0.9	0.9	1.0	1.0
	Approx. Overall Dia. in mm	6.2	6.8	7.0	7.6	9.0	10.6
3	Avg. Sheath thickness in mm	0.9	0.9	0.9	0.9	1.0	1.0
	Approx. Overall Dia. in mm	6.6	7.2	7.5	8.1	9.6	11.3
4	Avg. Sheath thickness in mm	0.9	0.9	0.9	1.0	1.0	1.0
	Approx. Overall Dia. in mm	7.2	7.9	8.1	9.0	10.5	12.4
6	Avg. Sheath thickness in mm	0.9	1.0	1.0	1.0	1.1	1.2
	Approx. Overall Dia. in mm	8.5	9.5	9.8	10.7	12.7	15.3
7	Avg. Sheath thickness in mm	0.9	1.0	1.0	1.0	1.1	1.2
	Approx. Overall Dia. in mm	8.5	9.5	9.8	10.7	12.7	15.3
8	Avg. Sheath thickness in mm	1.0	1.0	1.0	1.1	1.2	1.3
	Approx. Overall Dia. in mm	9.3	10.4	10.7	11.9	14.1	16.9
10	Avg. Sheath thickness in mm	1.0	1.1	1.1	1.1	1.3	1.4
	Approx. Overall Dia. in mm	10.8	12.2	12.6	13.8	16.6	20.0
12	Avg. Sheath thickness in mm	1.0	1.1	1.1	1.1	1.3	1.4
	Approx. Overall Dia. in mm	11.2	12.6	13.0	14.3	17.2	20.7
14	Avg. Sheath thickness in mm	1.1	1.1	1.1	1.2	1.3	1.4
	Approx. Overall Dia. in mm	12.0	13.3	13.7	15.2	18.1	21.8
16	Avg. Sheath thickness in mm	1.1	1.2	1.2	1.2	1.4	1.5
	Approx. Overall Dia. in mm	12.6	14.2	14.6	16.0	19.3	23.2
19	Avg. Sheath thickness in mm	1.1	1.2	1.3	1.3	1.4	1.5
	Approx. Overall Dia. in mm	13.2	14.9	15.6	17.1	20.3	24.5
24	Avg. Sheath thickness in mm	1.2	1.3	1.3	1.4	1.4	1.5
	Approx. Overall Dia. in mm	15.6	17.6	18.2	20.2	23.8	28.8
30	Avg. Sheath thickness in mm	1.3	1.3	1.3	1.4	1.4	1.5
	Approx. Overall Dia. in mm	16.8	18.7	19.3	21.5	25.7	30.6
	Max conductor Resistance at 20°C Ω / Km	39.0	26.0	19.5	13.3	7.98	4.95
	Recommended current rating Amp	4.0	7.0	11.0	14.0	19.0	26.0

Techno Flex Cables **Shielded Armoured / Unarmoured & Instrumentation Cable Specialist**