

Auto Cables

**The True Champion
On The Road**



FINOLEX CABLES LIMITED

Started in 1958, Finolex Cables Limited is India's largest and leading electrical and telecommunication cables manufacturer. Finolex Cables has always believed in enhancing capabilities and augmenting the product basket. In the last few years, besides the cables business the company has forayed into new segments and added new products under the Finolex brand. The company offers Total Electrical Solutions with products like Electrical Wires, 3 Core Flat Cables, Communication Cables, Telecommunication Cables, Flexible Cables, Auto Cables, Conduits, Room Heaters, LED Lights, Switches, Switchgears, Fans, Irons and Water Heaters. Finolex Cables Limited has four manufacturing facilities at Pimpri (Pune), Urse (near Pune), Verna (Goa) and Roorkee (Uttarakhand).

The company is known for its unmatched quality and safety standards which has made it amongst the most reliable brands of the country. Over the six-decade long journey, Finolex Cables has cemented its reputation as an innovative leader and quality manufacturer by continuously upgrading technology, modernizing manufacturing facilities and maintaining the highest standards in quality and service.

105°C TEMPERATURE RESISTANT PVC INSULATED THIN WALL AUTO CABLES

105°C Temperature Resistant PVC Insulated Thin Wall Automobile Cables are designed specially for the new generation automobiles. In these modern automobiles the focus is on miniaturisation and optimisation of space which results in increase of temperature in the engine compartments and other locations. Manufactured to German Standards, namely DIN 72551 Part 6, these cables have a lower overall diameter as compared to regular PVC Auto Cables. These cables can safely operate under extreme temperatures (-40°C to +105°C), and therefore are very popular worldwide. These cables are manufactured with high conductivity, bright annealed, bunched, bare copper conductor, and insulated with special grade in-house formulated and manufactured PVC compound which makes the insulation impervious to oil, water, petrol, diesel and grease. These cables undergo stringent quality checks during and after the process of manufacturing.

Table 1 - Conductor Construction and Dimensions

Size Sq. mm.	Insulation Thickness (Min.) mm	Overall Diameter (Approx.) mm	Conductor Resistance (Max.) at 20°C Ohm/km
0.50	0.22	1.50	37.1
0.75	0.24	1.80	24.7
1.00	0.24	2.00	18.5
1.50	0.24	2.30	12.7
2.50	0.28	2.115	7.6
4.00	0.32	3.55	4.7
6.00	0.32	4.15	3.1

General

1	Specification Followed	DIN 72551 Part 6
2	Maximum Rated Conductor Temperature	105°C
3	Low Temperature Suitability	-40°C

Note: Available in single and dual (striped) colours, in 25 metre and 100 metre coils.

Table 2 - Typical Tests

Tests Conducted	Expected Results
1) Voltage Test (1 kV AC for 30 minutes followed by gradual increase upto 5kV)	Withstands
2) Volume Resistivity at 70°C	1X10 ¹¹ Ω-cm minimum
3) Thermal overload (Heat shock test) (120°C for 48 Hrs, followed by Voltage Test at 1 kV AC)	No breakdown of insulation
4) Shrinkage (150°C for 15 minutes)	Max. 4%
5) Resistance to Heat Pressure/Hot Deformation Test (80°C for 4 Hrs)	Depth of indentation 35% max.
6) Accelerated Service Life Test - Voltage Test at 1 kV AC, followed by different types of conditioning (In oil at 100°C, In oven at 110°C for 48 Hrs, etc.), followed by Cold Impact Test (-20°C for 2 Hrs); followed by Voltage Test at 1 kV AC	No cracks, no breakdown of insulation
7) Resistance to Cold/Cold Bend Test (105°C for 48 Hrs, followed by cold bending under load at -40°C for 4 Hrs, followed by Voltage Test at 1 kV AC)	No cracks, no breakdown of insulation
8) Flame Resistance/Flammability Test	Self extinguishing within 30 seconds
*9) Effect of lubricating oil, brake fluid, diesel and petrol	Variation in diameter 4% max.

*This test is as per IS 2465

Finolex
Cables Limited
AN IS/ISO 9001 CERTIFIED COMPANY

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