

## EKTA CABLES

### Introduction

Ushering a new lease of life Scot Innovation Cables & Wires Pvt. Ltd. Is now one of the star name to reckon with in Wires & Cables industry with the brand name of “EKTA” cables. Scot innovation is dedicated to excellence in the research, development and production of a wide range of cables and wires for electrical, telecommunication and electronic applications. We endeavor to maintain our position in the forefront of our field in quality, technology and performance as well as in exploration of new business opportunities. It has been started as a small scale industry to manufacture Wires and Cables.

<b>Cable type</b>	<b>Mfg. Range</b>	<b>Relevant Specification</b>
1. PVC Power cables with Alum. 1.1kv	Single core upto 1000 mm <sup>2</sup> , multi core upto 630 mm <sup>2</sup>	IS : 1554 : Part 1 / 1988
2. PVC control cables 1.1Kv with Copper conductor including Railways Signalling, Screened /Unscreened cables	Up to 61 cores	IS : 1554 : Part 1 / 1988
3. Heat Resistant PVC Cables including Fire retardant low smoke cables 1.1kv	Single core up to 1000 mm <sup>2</sup> , multi core up to 630 mm <sup>2</sup> control cables up to 61 cores	IS : 1554 : Part 1 / 1988
4. Non- weather proof/ weather proof light duty PVC insulated Cables 1.1kv		IS:694/1990
5. LT -XLPE Power cables with aluminium conductor 1.1kv		IS 7098/Part -I/1988
5. LT -XLPE Control cables with copper conductor 1.1kv		IS 7098/Part -I/1988

### **PVC CABLES**

The use of PVC provided cables provided cables of excellent quality which were clean and much easier to handle. Further simplified terminators and jointing techniques make these cables eminently suitable among other applications for industrial and mining installation. The main advantages of PVC cables can be summarised as below:

- a) The insulation resistance and breakdown strength are practically unaffected by moisture.
- b) Cables can be overloaded for short period without any appreciable effect on cable life.
- c) Cables can be overlaid on steep slopes as no impregnation compound involved.
- d) PVC cables have long service life
- e) They are not affected by vibration.

### General Construction Conductors

The conductor shall be composed of Plain copper or aluminium wires. Mining cables to be used in gassy mines shall be of copper conductor only.

### Inner Sheath

For all cables having two or more cores , a common covering is provided over the laid up cores either by extrusion or by wrapping of plastic or proofed tapes .Single core cables do not require inner sheath.

### Outer Sheath

Over the armouring or in case of unarmoured cables, a tougher sheath is applied through extrusion.

### Testing of PVC Cables

Testing is a vital part of cable manufacturing process.All raw material testing in process checking and finished cable testing are thoroughly carried out to ensure quality of material.

### Routine Tests

#### ≥Conductor Resistance Test

This test ensures that conductor resistance is within the specified limit, thereby ensuring that the continuity of the conductor is maintained throughout the cable length and that the conductor has the required cross section area.

#### >High Voltage Test

This test ensures that the insulation will safely withstand the rated voltage with permissible variation in normal operation.

## **LT-XLPE CABLES**

Ekta cables is manufacturing LT Power cables with PVC or XLPE insulation of voltage grade upto 1.1kv conforming to various Indian and International standard Specification.

### Cross Linked Polyethylene (XLPE)

XLPE means cross linked polyethylene or vulcanised polyethylene.The basic material is low density polyethylene. It is a thermoplastic material consisting of long chain of hydrocarbon molecules. At elevated temperatures these molecules tend to move relative to one another so that the material becomes increasingly deformable and will eventually melt at temperature around 110 degree C.

LT XLPE Cables are superior over PVC Cables:

- >have longer life
- >have higher conductor temperature rating
- >have higher emergency overload capacity
- >have maximum temperature limit under short circuit conditions
- >have moisture resistance of nearly 100 times than PVC