

## **PREASSEMBLED AERIAL CABLE, ETHYLENE-PROPYLENE RUBBER INSULATION (EPR), THREE CONDUCTOR, SHIELDED, 5000 TO 15000 VOLT, TYPE MV-105**

### **SCOPE:**

This specification covers Aetna Insulated Wire's standard construction for three conductor preassembled, shielded aerial cables, Type MV-105 insulated with ethylene-propylene rubber (EPR) to the 5000V or 15000V level, jacketed, cabled and bound to a supporting messenger.

### **PRODUCT SPECIFICATIONS AND RATINGS:**

- i) National Fire Protection Association (NFPA) 70: National Electric Code (NEC)
- ii) UL 1072 Standard for Medium Voltage Power Cables
- iii) ICEA S-93-639/NEMA WC74 Shielded Power Cables for Use in the Transmission and Distribution of Electrical Energy
- iv) ICEA P-79-561 Guide for Selecting Aerial Cable Messengers and Lashing Wires
- iv) For product ratings see specific product data sheets

### **APPLICATION:**

The individual insulated conductors manufactured under this specification are in accordance with the NEC and as such are suitable under the code for 5 kV to 15 kV applications, at both the 100% and 133% insulation levels. All cables may be used in wet or dry locations. The cables are suitable for use in the transmission and distribution of electrical energy, indoors and outdoors, for industrial and electrical utility aerial power cable systems. The cable may be used at conductor temperatures of 105°C continuous, 140°C emergency overload and 250°C short circuit.

### **CONSTRUCTION DATA:**

**Conductors** - The conductor consists of uncoated soft, copper strands meeting the requirements of ASTM B3. Unless otherwise specified the conductor is supplied as Class B compact per ASTM B496.

**Conductor Shield** - The conductor shield consists of an extruded semi-conducting layer meeting the requirements of the governing specifications above.

**Insulation** - The insulation is ethylene-propylene rubber (EPR) extruded concentrically over the conductor to the wall thickness as specified in the governing specifications listed and as shown on the individual product specification sheets.

**Insulation Shielding** - Insulation shielding consists of a semi-conducting extruded compound and a 5 mil bare copper metallic tape shield overlapped a minimum of 20%.

**Jacket** - A sunlight and ozone resistant jacket of PVC or CPE is extruded over each single conductor. Optional jacket materials are available.

**Conductor Coding** -Phase identification is provided by colored stripe.

**Messenger** - The messenger is galvanized steel per ASTM Specification A475 and is sized per ICEA P-79-561.

**Assembly** - The required number of conductors will be twisted together. The messenger is laid straight, not part of the twisted group but paralleled against the group and firmly bound to the group by means of a polyethylene coated rectangular shaped galvanized steel binding strap. A 5 ft. extension of the messenger is left out on both ends of each length.

### **AVAILABLE OPTIONS:**

- a) (-40°C) PVC jacket or LLD Polyethylene jacket.
- b) Aetna 3742 non-halogen, flame resistant, low smoke, low corrosion, non toxic jacket.
- c) Copper clad steel messenger/copper binder
- d) Stainless steel messenger/stainless binder
- e) Jacketed messenger.