

## CROSS-LINKED POLYETHYLENE INSULATION (RHW-2/USE-2) TYPE TC, TYPE TC-ER, MULTI-CONDUCTOR, 600 VOLT, OR 1000 VOLT RW90, TRAY CABLE

### SCOPE:

This specification covers Aetna Insulated Wire's standard construction for multi-conductor tray cables insulated with flame retardant cross-linked polyethylene (RHW-2/USE-2), the insulated conductors cabled with an optional ground wire and with a protective polyvinyl chloride (PVC) or chlorinated polyethylene (CPE) jacket overall.

### PRODUCT SPECIFICATIONS AND RATINGS:

- i) National Fire Protection Association (NFPA)70, National Electric Code (NEC)
- ii) UL 1277 Electrical Power and Control Tray Cables
- iii) ICEA S-95-658/NEMA WC70 Non-shielded 0-2 kV Cables
- iv) CSA C22.2 No.38 Thermoset Wire and Cables
- v) CSA C22.2 No. 230 Tray Cables
- vi) For ratings see the individual product specification sheets.

### APPLICATION:

All cables produced to this specification conform to the requirements of the referenced specifications for RHW-2/USE-2, 600 V (RW90 1000V) construction. The cable conductors are suitable for continuous operation at 90°C, for emergency overload at 130°C and for short circuit operation at 250°C. Cables are made in accordance with but are not certified to the applicable CSA specification and exceed the requirements for the relevant ICEA specifications. Cables are UL listed as Type TC or Type TC-ER. NEC Article 336 defines the construction and applications for Type TC & Type TC-ER cables. Specifically constructions designated TC-ER are suitable for "Extended Runs" permitted "between a cable tray and the utilization equipment or device" for tray cable in tray. Cables are listed "sunlight resistant" and for direct burial. The cables are intended to be used in aerial applications, tray, wireways, troughs, channels, duct and conduit in wet or dry applications.

### CONSTRUCTION DATA:

**Conductors** - The conductors consist of uncoated soft, copper strands meeting the requirements of ASTM B3.

Unless otherwise specified the conductor is supplied as Class B compressed per ASTM B8.

**Insulation** - The insulation is flame-retardant cross-linked polyethylene (FR-XLP) extruded concentrically over the conductor to the wall thickness as specified by the relevant CSA and in excess of the referenced ICEA specification.

**Conductor Coding** - Phase identification is provided by number code on each insulated conductor.

**Ground Wire** - One stranded bare copper ground wire will be located in one of the outer interstices.

**Assembly** - Conductors and ground wire are cabled together with a left hand lay and suitable fillers to make the cable round. A binder tape is applied.

**Jacket** - A protective sunlight and ozone resistant jacket of polyvinyl chloride (PVC) or chlorinated polyethylene (CPE) is extruded overall.

### AVAILABLE OPTIONS:

- a) Custom ground configurations
- b) Aetna 3742 non-halogen, flame resistant, low smoke, low corrosion, non toxic jacket.
- c) (-40°C) PVC jacket.