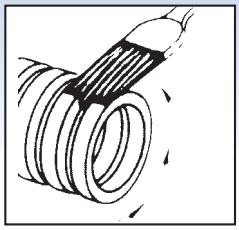
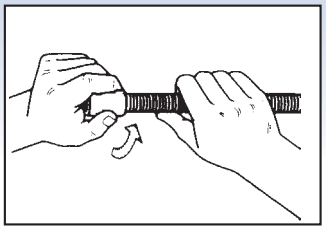
Concrete Encasement Guidelines

1. Cut ENT square and cleanly.
2. Insert end into fitting, making sure two (2) full corrugations are snapped into fitting beyond flexible tabs (2 clicks).
3. ENT should be tied to rebar at 2–3 foot intervals to prevent flotation. Keep ENT straight. Small deflections over a long run may accumulate significant degrees of bend that will affect conductor installation. Suitable materials include wire, tie wraps and tape.
4. When using rigid non-metallic conduit fittings for concrete tight performance:





A. Do not use chemical primer or cleaner.

B. Use a brush to apply a light, uniform coat of cement labeled for use with ENT on the coupling and ENT.

C. Do not use a dauber.

D. Brush excess cement out of ENT grooves.

E. Promptly insert ENT into fitting while cement is wet, until the stop is reached, and give a quarter turn.

F. Do not disturb until joint is set.

Specifications:

1.1 Electrical Non-Metallic Tubing (ENT) is designed to replace EMT, flexible metal conduit or other raceway or cable systems, for installation in accordance with Article 362 of the National Electrical Code® Section 12-1500 of the CEC, other applicable sections of the Code and local codes.

1.2 Any ENT used shall be listed to the requirements of UL Standard UL 1653 in accordance with Article 362 of the NEC® and Section 12-1500 of the CEC.

1.3 Any ENT used shall meet the requirements of BI National Standard CAN/CSA-C22.2 No. 227.1-UL1653 and shall be Listed/Certified in accordance to the Electrical Codes.

1.4 Carlon's® ENT shall be installed per the technical assessment prepared by fire cause analysis for use in 1-hour and 2-hour rated construction.

1.5 Penetration of fire-rated walls, floors or ceilings shall use Classified Through-Penetration Firestop Systems described in the current Underwriters Laboratories Fire Resistance Directory.

1.6 Fittings and outlet boxes designed for use with ENT shall be listed. All fittings, boxes and accessories shall be from one manufacturer.

1.7 Only Carlon® ENT Blue™ cement recommended specifically for use with ENT and rigid non-metallic fittings shall be used.

1.8 Unless indicated differently on drawings, ENT systems shall be color coded: BLUE for branch and feeder circuit wiring, YELLOW for communications and RED for fire alarm and emergency systems, or colors can designate different voltages.

1.9 ENT, fittings and accessories shall be manufactured by Carlon®.

Features:

- Recognized for use with PVC rigid non-metallic conduit fittings with all sizes of ENT
- ENT rated for 90°C conductors U.S., and 75°C Canada
- One-piece ENT Coupling, Threaded Terminator and RNC Transition Fitting are rated concrete tight without tape
- Recognized for use in 2-hour fire-resistive nonload-bearing and load-bearing wall assemblies
- Recognized for use in 1-hour fire-resistive nonload-bearing wall assemblies
- Recognized for use in a fire-resistive ceiling assembly (up to 3 hours)
- Recognized for Through-Penetration Firestop systems as classified by UL to meet ICC building codes.
- Conductors easily push through the raceway (up to approximately 50 feet)*
- For use in buildings in accordance with NEC® Article 362/ CEC Section 12-1500
- Outside Diameters meet IPS Dimensions
- Storage -4°F to 158°F
- Handling -4°F to 104°F

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Carlon®

Technical Information (cont.)

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Approved Uses:

- Concrete slab — NEC® Article 362/CEC Section 12-1500
- Walls — wood stud, masonry and metal stud — NEC® Article 362/CEC Section 12-1500
- Ceilings — permanent or dropped (free air only) — NEC® Article 362/CEC Section 12-1500
- Exposed — NEC® Article 362/CEC Section 12-1500
- Public assembly — NEC® Section 518.4, in non-fire rated and certain five rated structures
- Prewired — NEC® Article 362/CEC Section 12-1500
- Classified by UL 1479 for Through Penetration Firestop Systems in UL Guide Category XHEZ and current UL Fire Resistance Directory
- Three-hour rated floor/ceiling assemble
- Raised floors — NEC® Section 645.5(D)(2)
- Exposed or concealed in building above three floors when a fire sprinkler system is installed in accordance with NFPA 13 — NEC® Section 362.10(2)
- For use in residential attics up to 3 feet above the bottom of the ceiling joist
- Maximum ambient temperature 140°F (60°C)

Typical Applications:

- Residential: low or high rise — multi or single family
- Commercial: low or high rise — office, retail, hotel/motel, restaurant, etc.
- Nursing homes/hospitals in non-patient care areas only
- Schools, classrooms, dormitories, offices
- Fire alarm systems
- Recreational vehicles and parks
- Solar photovoltaic systems
- Marinas and boatyards
- Other uses per the current NEC® and CEC

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