

# KWIKON ENT & FITTINGS

1/2" - 2" (12mm - 50mm)



Noncorroding and nonconducting Kwikon® Electrical Nonmetallic Tubing (ENT) fittings, slab boxes and accessories are engineered for the rugged day-to-day challenges of the construction industry - whether encased in concrete, concealed in walls or ceilings.

Kwikon ENT's corrugated construction allows it to be bent easily by hand. No special bending equipment is required. And our unique Kwikon couplings and connectors, with their unique 360° locking tabs, provide for snap-on, lock-in installation that exceeds CSA and UL requirements for conduit pullout.

Add our innovative form stubbys and Kwikon concrete-tight slab boxes, (available with or without integral 1/2", 3/4" or 1" molded hub connectors) and you've got a total integrated system that saves you time and money on the job. Available in 1/2" to 2" sizes, Kwikon ENT is FT-4 rated for use in non-combustible construction.

## ADVANTAGES

- 1 Concrete-Tight**  
Every contractor's worst nightmare is a product that doesn't work or hold up in poured concrete; the costs of replacement and repair can be tremendous. Kwikon ENT and fittings are concrete-tight, requiring no solvent welding or tape around the connections, or paper stuffed inside.
- 2 Pull Resistant**  
Once a length of Kwikon tubing is connected to a coupling or connector, it stays connected, thanks to our unique six locking tab design. With a pull-out resistance of up to 175 lbs., our patented snap-on, lock-in system provides a seal that easily meets CSA requirements for conduit pullout.
- 3 Fire Resistant**  
Kwikon ENT tubing, fittings and slab boxes are approved for use in noncombustible 2 hour and 4 hour fire-rated floor/ceiling assemblies.
- 4 Impact Resistant**  
Kwikon ENT is made of impact resistant PVC, so it won't break or crack if an object is dropped on it or someone steps on it.
- 5 Strong Fittings**  
Kwikon's strong, solid fittings meet all UL and CSA requirements.
- 6 Flexible**  
Flexible enough to be bent by hand, Kwikon ENT is tough enough to withstand crushing and breaking.

## APPLICATIONS

- Residential (low or high rise)
- Commercial (low or high rise)
- Institutional (Prisons, Schools, Universities)
- Hospitals and Nursing Homes
- Stadiums and Arenas

## STANDARDS



CSA Standards C22.2 No. 227.1,  
C22.2 No. 85  
NEMA TC-13  
UL 514B, UL 514C, UL 1653

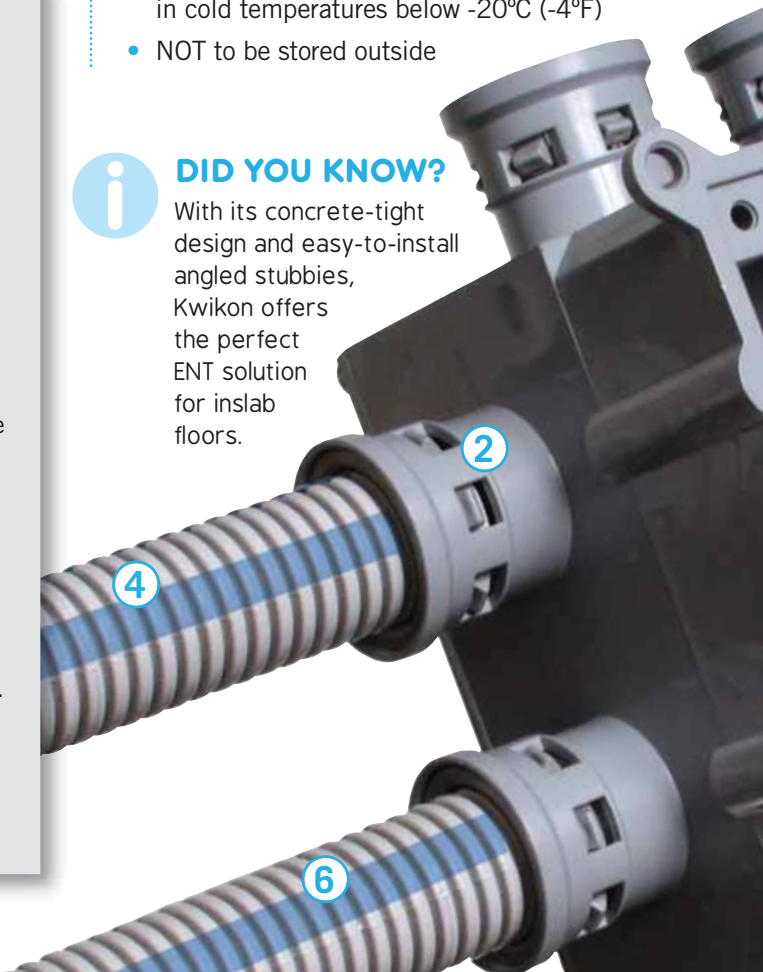
## STORAGE & HANDLING

- NOT to be installed, stored, or handled in cold temperatures below -20°C (-4°F)
- NOT to be stored outside



## DID YOU KNOW?

With its concrete-tight design and easy-to-install angled stubbies, Kwikon offers the perfect ENT solution for in-slab floors.



## INSTALLING IS THIS EASY

### 1. Unroll Kwikon to desired length

Available in convenient coil and reel lengths up to 1,500 ft., Kwikon gives you the flexibility to measure out exactly the amount of tubing you need. Kwikon requires fewer couplings for long spans than metal conduit. It's recommended ENT be securely fastened at 2 – 3 ft. intervals.

### 2. Cut Kwikon with an Ent Cutter

For straight cuts every time use the Kwikon scissor-style cutting tool. However, no special tools or cutting equipment are necessary. Kwikon can even be cut with a standard utility knife.

### 3. Make bends and turns by hand

Unlike metal which has to be cut to fit tight spaces, Kwikon can be bent, turned and manipulated by hand to wind around irregular curves and corners. When bending, ensure the radius of the curve is at least six times the diameter of the tubing.

### 4. Simply snap connections together

With no special tools or equipment needed, Kwikon's unique snap-on fittings quickly and easily join or terminate Kwikon ENT and provide a concrete-tight connection.

### 5. Pull Cable through Kwikon

Kwikon's interior corrugated surface significantly reduces the amount of friction when pulling cables through long runs, even in runs with 90° bends. With Kwikon, you can pull longer runs of cable without worrying about damage.



## SHORT FORM SPECIFICATIONS

### GENERAL

#### 1.1 References

- A. Standards referred to in this section are:
  - 1. UL 1653 Electrical Nonmetallic Tubing.
  - 2. NEMA TC-13 Electrical Nonmetallic Tubing.

### PRODUCTS

#### 2.1 Manufacturers

- A. Acceptable manufacturers are listed below
  - 1. Electrical Nonmetallic Tubing: a. Kwikon by IPEX
  - 2. Electrical Nonmetallic Tubing Fittings: a. Kwikon by IPEX
  - 3. Electrical Nonmetallic Tubing Boxes: a. Kwikon by IPEX
- B. All ENT tubing, ENT fittings, ENT boxes and accessories shall be manufactured by the same company so as to form a complete ENT system.
- C. ENT systems shall be approved for use in fire resistance rated concrete floor-ceiling assemblies with fire resistance ratings up to 4 hours.

#### 2.2 Raceways

- A. ENT raceway shall be color coded to indicate the wiring system. Blue stripe for power, red stripe for fire alarm/emergency systems and yellow stripe for data/communications.
- B. ENT raceway shall be listed to UL 1653 and manufactured in accordance with NEMA TC-13.

#### 2.3 Fittings

- A. ENT Fittings shall be manufactured of high-impact PVC,
- B. ENT Fittings shall meet the following requirements:
  - 1. Six locking tabs located every 60° providing 360° contact.
  - 2. Locking tabs shall provide a conduit pullout of a minimum 175 ft-lb force.
  - 3. Concrete tight without the need for taping.
  - 4. When transitioning to EMT conduit, the transition fitting shall have six locking tabs for ENT connection and set-screw connection for EMT.

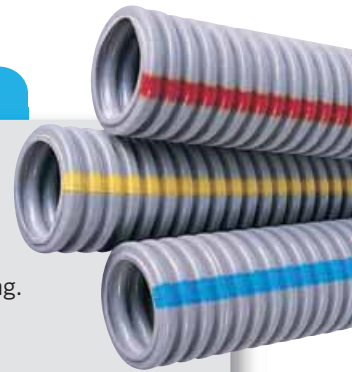
#### 2.4 Boxes

- A. ENT boxes shall be manufactured of high-impact PVC,
- B. ENT Slab Box and Wall Box requirements:
  - 1. Slab Boxes shall be approved for the purpose and concrete-tight.
  - 2. Round Slab Boxes shall be approved for use with luminaires up to 50 lbs and ceiling fans up to 35 lbs.
  - 3. Round Slab Boxes shall have threaded brass inserts for the attachment of luminaires or ceiling fans.
  - 4. Slab Boxes shall have eight (8) integrally molded ENT hub connectors with six locking tabs for ENT raceway connection.

### INSTALLATION

#### 3.1 Installation

- A. ENT raceways, fittings, boxes and accessories shall be installed in accordance with Article 362 of the 2014 National Electrical Code.
- B. Where ENT penetrates a fire-rated wall, floor or ceiling assembly, an approved firestop system as listed in Underwriters Laboratories Building Materials Directory or other nationally recognized testing laboratory shall be used.
- C. Not permitted for use where subject to ambient temperatures in excess of 122°F (50°C)



## KWIKON ENT

Size inches	ID inches	OD inches	Length feet	Product Code
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### Kwikon ENT Coils – Blue Stripe



1/2	0.574	0.840	200	012031
3/4	0.778	1.050	100	012040
1	1.000	1.315	100	012041
1-1/4	1.340	1.660	500	012046
1-1/2	1.610	1.900	300	012032
2	2.020	2.375	225	012043

### Kwikon ENT Reels – Blue Stripe



1/2	0.574	0.840	1500	012002
3/4	0.778	1.050	1000	012011
1	1.000	1.315	750	012021
1-1/4	1.345	1.660	1000	012047
1-1/2	1.610	1.900	750	012033
2	2.020	2.375	500	012044

Size inches	Length feet	Product Code	Crate Size
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### Kwikon ENT 10' Sticks – Blue Stripe



1/2	10	012001	3600
3/4	10	012010	2200
1	10	012034	1800

Size inches	Length feet	Product Code	
		Red	Yellow

### Kwikon ENT Reels – Color Coded



1/2	1500	012305	12335
3/4	1000	012307	12337
1	750	012310	12340

Note: 1-1/4", 1-1/2", 2" red and yellow stripe ENT is available by special order.

### Storage of Kwikon ENT Tubing

Manufacturer recommends that ENT tubing should not be stored outdoors where subjected to direct sunlight without protective covering, i.e. packaging or tarps.

## KWIKON FITTINGS

Size inches	Part Number	Product Code
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### Kwikon Couplings



1/2	KC10	089000
3/4	KC15	089001
1	KC20	089002
1-1/4	KC25	189670
1-1/2	KC30	189671
2	KC35	189672

### Kwikon Snap-in Connectors



1/2	KTS10	089146
3/4	KTS15	089147
1	KTS20	089148

### Kwikon Connectors\*



1/2	KTA10	089006
3/4	KTA15	089007
1	KTA20	089008
1-1/4	KTA25	189680
1-1/2	KTA30	189681
2	KTA35	189682

\*KTA connectors are supplied with locknuts.

### Kwikon Transition Couplings



1/2	KTC10	089012
3/4	KTC15	089013
1	KTC20	089014