system, including boxes and fittings used therewith, shall be installed and equipped so as to prevent water from entering the conduit. All supports, bolts, straps, screws, and so forth, shall be of corrosion-resistant materials or be protected against corrosion by approved corrosion-resistant materials.

(F) Dry and Damp Locations. PVC conduit shall be permitted for use in dry and damp locations not prohibited by 352.12.

Δ **(G) Exposed.** PVC conduit shall be permitted for exposed work.

(H) Underground Installations. For underground installations, PVC shall be permitted for direct burial and underground encased in concrete. See 300.5 and 305.15.

Schedule 40 and Schedule 80 PVC are both permitted for underground installations, such as under driveways, provided that the required burial depth is met.

See also

Table 300.5(A) for burial depth minimum cover requirements for 1000 V ac or less underground installations

Table 305.15(A) for burial depth minimum cover requirements for over 1000 V ac underground installations

(I) Support of Conduit Bodies. PVC conduit shall be permitted to support nonmetallic conduit bodies not larger than the largest trade size of an entering raceway. These conduit bodies shall not support luminaires or other equipment and shall not contain devices other than splicing devices as permitted by 110.14(B) and 314.16(C)(2).

(J) Insulation Temperature Limitations. Conductors or cables rated at a temperature higher than the listed temperature rating of PVC conduit shall be permitted to be installed in PVC conduit, provided the conductors or cables are not operated at a temperature higher than the listed temperature rating of the PVC conduit.

Conductors marked with a rated temperature higher than that of the raceway can be used if the conductors are to be operated within the raceway temperature rating. One application is the use of 105°C-rated medium-voltage cables, Type MV, where the cable ampacity at the 105°C rating is reduced to the cable ampacity at 75°C or 90°C to match the listed operating temperature rating of the PVC conduit (75°C or 90°C).

N **(K) Physical Damage.** Where subject to physical damage, Schedule 80 PVC conduit, Schedule 80 PVC elbows, and listed fittings for PVC conduit shall be used.

Informational Note: All listed PVC conduit fittings are suitable for connection to both Schedule 40 and Schedule 80 PVC conduit.

352.12 Uses Not Permitted. PVC conduit shall not be used under the conditions specified in 352.12(A) through (E).

(A) Hazardous (Classified) Locations. In any hazardous (classified) location, except as permitted by other articles of this *Code*.

(B) Support of Luminaires. For the support of luminaires or other equipment not described in 352.10(I).

(C) Physical Damage. Where subject to physical damage, except as permitted in 352.10(K).

(D) Ambient Temperatures. Where subject to ambient temperatures in excess of 50°C (122°F) unless listed otherwise.

(E) Theaters and Similar Locations. In theaters and similar locations, except as provided in 518.4 and 520.5.

In addition to the conditions in 352.12(A) through (E), PVC conduits are not permitted to be installed in ducts, plenums, and other air-handling spaces.

See also

300.22 for limitations of the use of materials in ducts, plenums, and other air-handling spaces, which could contribute smoke and products of combustion during a fire

352.20 Size.

(A) Minimum. PVC conduit smaller than metric designator 16 (trade size ½) shall not be used.

Δ **(B) Maximum.** PVC conduit larger than metric designator 155 (trade size 6) shall not be used.

Informational Note: See 300.1(C) for the trade sizes and metric designators that are for identification purposes only and do not relate to actual dimensions.

352.22 Number of Conductors. The number of conductors shall not exceed that permitted by the percentage fill specified in Table 1, Chapter 9.

Cables shall be permitted to be installed where such use is not prohibited by the respective cable articles. The number of cables shall not exceed the allowable percentage fill specified in Table 1, Chapter 9.

Table 4 of Chapter 9 provides the usable area within the selected conduit or tubing, and Table 5 provides the required area for each conductor. Examples using these tables to calculate a conduit or tubing size are provided in the commentary following Chapter 9, Notes to Tables, Note 6.

To select the proper trade size of PVC conduit, see the appropriate sub-table for Article 352, Rigid PVC Conduit (PVC), in Table 4 of Chapter 9. If the conductors are of the same wire size and insulation type, Tables C.10 and C.10(A) through Tables C.13 and C.13(A) can be used instead of performing the calculations, provided the appropriate table for the given type of PVC conduit is used.

Δ **352.24 Bends.**

N **(A) How Made.** Bends shall be so made that the conduit will not be damaged and the internal diameter of the conduit will not be effectively reduced. Field bends shall be made only with identified bending equipment. The radius of the curve to the