

WHITE PAPER: What is Direct Burial?

Direct Burial is burial of wiring or electrical conductors underground.

While putting wiring underground, the 2023 NFPA 70 National Electrical Code (NEC) allows protection of wiring with liquid tight conduit.

- NEC Article 350.10 (3) allows liquid tight, flexible metal conduit (LFMC)
- NEC Article 356.10 (4) allows liquid tight, flexible non-metallic conduit (LFNC)
- Only straight fittings may be used; no 45- or 90-degree fittings may be used

To make identification easy, flexible ANACONDA SEALTITE® conduit suitable for Direct Burial is marked "DIR BURIAL" or "DIRECT BURIAL." UL listed ANACONDA SEALTITE® electrical conduit protects wiring from Direct Burial conditions. The liquid tight, flexible, metal conduit (LFMC) produced by ANAMET Electrical, Inc. Type UA, HTUA, ASUA, CW and ZHUA conduit is suitable for Direct Burial because of these features:

- Flexibility (resistance to soil compaction, expansion or movement)
- Resistance to corrosion, machine oils, liquids, vapors and solids
- Crush and impact resistance (over a thousand pounds of crush resistance)
- Hot and cold temperature resistance (below water freezing temperature and near water boiling temperature or beyond)
- Liquid tight seal providing resistance to tree root intrusion
- Resistance to UV (sunlight) aging

UL listed, liquid tight, flexible, non-metallic conduit (LFNC) is also approved for Direct Burial.

- Types CNP and NMUA ANACONDA SEALTITE® conduit are durable like LFMC, however, they do not have the same crush resistance as LFMC

To support Direct Burial use, every production run of ANACONDA SEALTITE® is tested for conformance to quality standards.

- UL 360 regulates flexible metal conduit testing
- UL 1660 regulates flexible non-metallic conduit testing
- These two test standards meet NEC requirements for safe electrical conduit

Flexible conduit (LFMC or LFNC) is a better choice for Direct Burial because rigid PVC conduit has these physical limitations:

- Rigid PVC may crack or break in handling or after burial due to soil movement
- Rigid PVC may break from impact or crushing force
- Hot and cold temperatures can cause rigid PVC conduit expansion or contraction and soil movement so water enters conduit joints
- Tree roots enter joints, expanding over time to break rigid PVC conduit
- Exposure to UV (sunlight) makes some rigid PVC conduit brittle and easily broken

Although ANAMET Electrical, Inc. also makes flexible metal conduit (FMC Type RWA and RWS), it is not suitable for Direct Burial due to wet conditions and possibility of corrosion.

Visit www.anacondasealtite.com for more information about ANACONDA SEALTITE® liquid tight conduit and corrosion resistant straight fittings suitable for Direct Burial.



LFMC and LFNC protect wiring in Direct Burial



Rigid PVC conduit may be broken by impact



Tree roots can intrude on wiring in rigid PVC conduit



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