

UNDERGROUND APPLICATIONS

Whenever a flexible closed cell insulation material is used in a burial type application, there are two main concerns. First is the problem of long-term water absorption due to poor drainage in the area, and second is compression of the insulation due to compaction of the surrounding area. It is difficult to give general recommendations since each application can be considerably different because of the surrounding conditions.

For buried lines above the water table, use a clean fill such as sand (3" - 5" layer) to protect the insulation and provide good drainage before backfilling. It is recommended that insulation to be buried is properly sealed at all seams and butt joints with an approved contact adhesive. For optimum performance, the lines should be encased in a conduit such as PVC pipe, concrete or equivalent to protect them from problems associated with ground water and compaction.

It is a common practice to increase the usual wall thickness by one size to compensate for compaction i.e. 3/8" to 1/2", 1/2" to 3/4" or 3/4" to 1". When insulation with pressure sensitive adhesive (psa) seams is directly buried, it is recommended that the maximum operating temperature be reduced to 160°F.

In most applications, good drainage and no compaction can be met with reasonable precautions during the installation.

The use of insulation in a below ground application will not only provide insulation value but will also provide some protection of the copper pipe from acid soils and abrasion from stones or rocks.

As long as the concerns for proper drainage and compaction are met, closed cell flexible insulation will provide good long-term service in a burial type application.

Refer to our website nomaco.com for direct burial installation guidelines.