

Burying Gastite®

Burying Gastite® externally

Domestic natural gas installation pipework up to DN32 should be buried in accordance with BS 6891 and domestic Liquefied Petroleum Gas (LPG) installation pipework up to DN25 should be buried in accordance with BS 5482-1.

For installation pipework on industrial and commercial premises, from sizes DN15 up to DN50 the requirements of IGEN/UP/2 Edition 2 should be followed for both natural gas and LPG.

LPG service pipework operating at less than 500 mbar, (the section of pipework between the LPG bulk storage vessel/cylinder outlet and emergency control valve (ECV) located at the property itself), should be installed in accordance with UKLPG COP22.

Gastite® is a robust and versatile product that can be buried internally and externally according to manufacturer's instructions. While tested for direct burial, sleeving is recommended throughout the entire run.

BS 6891 requires that Gastite® should be buried externally at the following depths:

Pipework location	Min depth of cover (mm)
Buried pipework in soil	375
Buried pipework below light vehicular traffic	450
Buried pipework below heavy vehicular traffic	600
Buried below concrete with only pedestrian access	40

BS 5482-1 requires that Gastite® should be buried externally at the following depths:

Pipework location	Min depth of cover (mm)
Buried pipework in open soil	375
Buried pipework below vehicular traffic	600
Buried below concrete with only pedestrian access	100

IGEM/UP/2 (Latest Edition) requires that Gastite® should be buried externally at the following depths:

Pipework location	Min depth of cover (mm)
Carriageways	450
Path footways	375
Verges	375
Other fields and agricultural land	1100
Other private ground	375

UKLPG COP22 requires that LPG service pipework be buried with a minimum depth of cover of 350mm where there is negligible risk of interference/mechanical damage or at 600mm where there is a greater risk of damage. This dimension can however be reduced if the service pipework is protected against possible damage e.g. by laying concrete slabs approximately 100mm above the service pipework.

For LPG Installations, buried metallic pipework (other than proprietary systems intended for underground use) should only be used when an appropriate:

- Risk Assessment has been carried out.
- Inspection and Maintenance Strategy (see UKLPG User Information Sheet 15) has been developed and implemented.

Where this is proven acceptable, then sleeved Gastite® should be installed in either:

- a) A trench backfilled with inert, non-corrosive material free of abrasive material likely to damage its corrosion protective sleeve; or
- b) Inside a buried outer pipe or covered channel which terminates either above ground or in a suitable inspection pit. The design should be as such as to prevent accumulation of water in the outer pipe or duct, while enabling periodic inspection.

In all cases, whether for natural gas or LPG, joints and fittings must not be buried.

Burying Gastite® internally

Gastite® is a robust and versatile product that can be buried internally and should be sleeved throughout the entire run to offer protection from corrosion as per BS EN 15266. There should be a minimum of 25mm depth cover of screed above the Gastite® sleeve. Joints and fittings must not be buried.

Bibliography

BS 6891:2005+A2:2008 Incorporating Corrigendum No.1 – Installation of low-pressure gas pipework of up to 35mm (R1¼) in domestic premises (2nd family gas) – Specification.

BS 5482-1: 2005 Code of Practice for domestic butane and propane-gas-burning installations – Part 1: Installations at permanent dwellings, residential park homes and commercial premises, with installation pipework sizes not exceeding DN25 for steel and DN25 for corrugated stainless steel or copper.

IGEM/UP/2 Edition 2 Installation pipework on industrial and commercial premises.

UKLPG Code of Practice 22 – Design, installation and Testing of LPG Piping Systems: 2011

UKLPG User Information Sheet 15 Inspection and maintenance of LPG pipework at commercial and industrial premises.