

## Pipework Solutions from Tata Steel: Steel tubes for gas applications

Multi-certified, hot-finished tubes for all your gas pipework needs

Tata Steel has a range of premium, UK manufactured tube products to satisfy your requirements for gas distribution services and installation pipework.

Our HFI (High Frequency Induction) welded carbon steel tubes are rigid, robust and reliable, and are suitable for gas pipework conveying either Natural Gas (NG) or LPG (Liquefied Petroleum Gas) at ambient temperature.



Table 1

Product selection data - gas distribution

| Design pressure (DP)             | Typical tube standard       | Typical steel grade      | Tata Steel product family offering   | Recommended jointing option                           |
|----------------------------------|-----------------------------|--------------------------|--|---|
| < 1 bar <sup>Note 1</sup>        | EN10255                     | S195T / S235GT           | Install <sup>®</sup> 195, Install <sup>®</sup> Plus 235, Inflow <sup>™</sup> Plus 235, Inline <sup>™</sup> 245 & 265     | Threaded (≤50nb), welded or flanged <sup>Note 3</sup> |
|                                  | EN10217-1                   | P195TR1 / P235TR1        |  |   |
| ≤ 5 bar                          | EN10255                     | S195T / S235GT           | Install <sup>®</sup> 195, Install <sup>®</sup> Plus 235, Inflow <sup>™</sup> Plus 235, Inline <sup>™</sup> 245 & 265     | Welded or flanged <sup>Note 3</sup>                   |
|                                  | EN10217-1                   | P195TR1 / P235TR1        |  |   |
| ≤ 16 bar                         | EN10208-1 <sup>Note 2</sup> | L235GA / L245GA / L290GA | Install <sup>®</sup> Plus 235, Inflow <sup>™</sup> Plus 235, Inline <sup>™</sup> 245 & 265, Inline <sup>™</sup> Plus 355 | Welded or flanged <sup>Note 3</sup>                   |
|                                  | EN10217-1                   | P235TR1 or TR2           |  |   |
|                                  | GIS-L2 <sup>Note 2</sup>    | L245GA                   |  |   |
|                                  | API 5L / EN ISO3183         | B / L245 / PSL1          |  |   |
| > 16 ≤ 100 bar <sup>Note 4</sup> | EN10208-2 <sup>Note 2</sup> | L245NB / L290MB          | Install <sup>®</sup> Plus 235, Inflow <sup>™</sup> Plus 235, Inline <sup>™</sup> 245 & 265, Inline <sup>™</sup> Plus 355 | Welded or flanged <sup>Note 3</sup>                   |
|                                  | EN10217-2                   | P235GH / P265GH          |  |   |
|                                  | EN10217-3                   | P355                     |  |   |
|                                  | API 5L / EN ISO3183         | BN / L245 PSL2           |  |   |
|                                  |                             | X42N / L290N PSL2        |  |   |

**Note 1:** Pipework with Screwed & Socketed (S&S) threaded joints can only be employed up to 50mm nb (nominal bore) (OD60.3mm) and for pressures <1 bar. Code or regulatory standards may specify lower maximum pressures. For higher pressures, welded joints or alternative acceptable jointing techniques are required.

**Note 2:** EN10208 parts 1 & 2 now withdrawn, but still may be referred to in customer specifications and supplied on request. Purchasers and suppliers of GIS/L2 materials may require to be approved under the BSI kite-mark procedure.

**Note 3:** Flanged if applicable/suitable for application.

**Note 4:** Tata Steel can also supply HFI and SAW tube suitable for gas transmission pipelines. These tubes are outside the scope of this datasheet.

### Product family

For full details of Tata Steel tube product family and associated specifications, please refer to the appropriate product literature.

Our Customer Technical Services (CTS) experts are also available to answer any questions or advise on pipework applications suitability.

### CE Marking

For use on pipework in buildings, EN10255 products must be CE marked to CAT3 in accordance with the Construction Products Regulation (CPR) for use with gas.

To apply this CE mark, tube manufacturers must demonstrate that their production has been 3rd party approved.

A product Declaration of Performance (DOP) shall also be made available in support of their offering. DOP's for all Tata Steel products are available on request.

### Other requirements

The transportation of gas involves stringent legal and regulatory requirements that must be followed.

The user should therefore ensure that they are operating fully in compliance with all relevant statutory and legislative requirements.

Users must also ensure that the Standards and Engineering Documents referenced are the latest version, and that they are being correctly applied.

Additional, more detailed guidance may be obtained in the UK from IGEM (the Institution of Gas Engineers and Managers: [www.igem.org.uk](http://www.igem.org.uk)) and IGEM standards TD/3, TD/4 and UP/2, or from the equivalent European bodies.

### Joining

The use of welded joints is strongly recommended for gas pipework. Welding shall be carried out in accordance with the appropriate British, European or International standards.

Pipework with screwed & socketed (S&S) threaded joints (in accordance with EN10226 Parts 1 or 2) can only be employed up to 50mm nb (OD60.3mm) and for pressures <1 bar (see Note 1 Table 1).

In such cases, suitable jointing compounds, in accordance with EN751, must also be employed.

### Safe assembly

For safe assembly, it is recommended that the pipework system should not contain a mixture of different types of threaded joints and fittings.

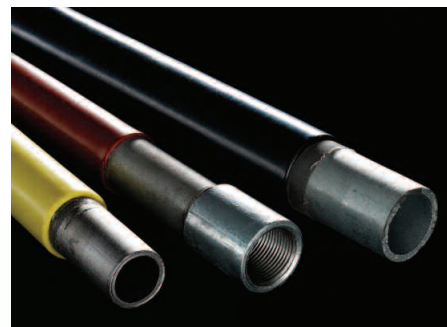
For example, ideally, where possible, a mixture of taper/parallel (EN10226-1) and taper/taper (EN10226-2) jointing systems should not be used in the same installation.

### Buried systems

Any gas pipework being buried, either externally or within structures, should be fully pre-wrapped or suitably coated to ensure adequate external corrosion resistance.

Bitumen-based wraps and tapes are readily available from appropriate suppliers.

Alternatively, sub-contractors may apply polymer wrappings, extruded or epoxy coatings.



### Coated tubes

Tata Steel produces a range of epoxy and polymer-coated products (certain coating options and size restrictions do apply).

Please contact one of our Customer Technical Services experts for further information.

### Disclaimer

This document is provided for guidance only. It refers only to technical suitability and does not absolve the user from legal obligations at any stage.

For suitability and compatibility of non Tata Steel fittings please contact your fittings supplier for further information.

### Technical support

Our Customer Technical Services (CTS) experts are on hand to answer any product enquiries.

Please contact us via the Tubes Technical Helpline: +44 (0) 1536 404561

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