


# Technical Specification

## WARNING BAND

ET 114


Revision No. 5 | 30 January 2023



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## Register of revisions

Revision number	Date	Motif
0	2003-10-30	Initial wording
1	2003-11-10	Point: 4.4. Inscriptions; Drawing No. ET 114.01
2	2008-03-07	Replacement of the reference "Portgás" by "EDP Gás Distribuição".
3	2010-07-14	General revision
4	2017-12-11	General revision
5	2023-01-30	General revision carried out by IDOM Consulting, Engineering, Architecture, SAU

## Information classification

<b>Confidential</b>	<input type="checkbox"/>	<b>Restricted</b>	<input type="checkbox"/>	<b>Internal use</b>	<input type="checkbox"/>	<b>Public</b>	<input checked="" type="checkbox"/>
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## Distribution of the document

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Internal	CA <input type="checkbox"/> AT <input checked="" type="checkbox"/> ACR <input checked="" type="checkbox"/>
	AT-ED <input type="checkbox"/> AT-EX <input type="checkbox"/> AT-GE <input type="checkbox"/> AT-MS <input type="checkbox"/>
	ACR-DC <input type="checkbox"/> ACR-GC <input type="checkbox"/> ACR-RD <input type="checkbox"/>
Nominal	< name, function, position >

Caption:

CA: Board of Directors

AT: Technical Area

AT-ED: Technical Area - Engineering and Development

AT-EX: Technical Area - Exploration

AT-GE: Technical Area - Energy Management

AT-MS: Technical Area - Maintenance and Systems


ACR: Clients and Networks Area


ACR-DC: Clients and Networks Area - Commercial Development

ACR-GC: Clients and Networks Area - Large Consumption

ACR-RD: Clients and Networks Area - Networks

Elaborated:	Check:	Approved:
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The approval of this document formalised in this page, prevails over the totality of its contents.		

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## Preamble

As part of the "H2 REN Programme" aimed at adapting technical specifications to prepare assets to receive hydrogen up to 100%, Portgás identified this regulation to be subject to assessment and consequent revision.

This revision of ET 114 cancels and replaces the previous revision dated 11 December 2017, and it is advisable to read this technical specification in full for a correct application of its provisions.

This technical specification should be given the status of a Portgás standard which establishes the rules to be followed to achieve the discriminated objective.

## 1. Objective

This Technical Specification defines the characteristics to be met by the warning strip used to indicate the presence of buried Portgás gas piping or other infrastructure.

## 2. Scope

This Technical Specification applies to all types of warning band placed, manually or mechanically, on Portgás gas pipes or other buried infrastructure.

## 3. References external

All undated documents should be considered in their latest version.

### Despacho n° 806-B/2022, de 19 de janeiro


"Regulamento da Rede Nacional de Distribuição de Gás."

### EN 12613

Plastics warning devices for underground cables and pipelines with visual characteristics.

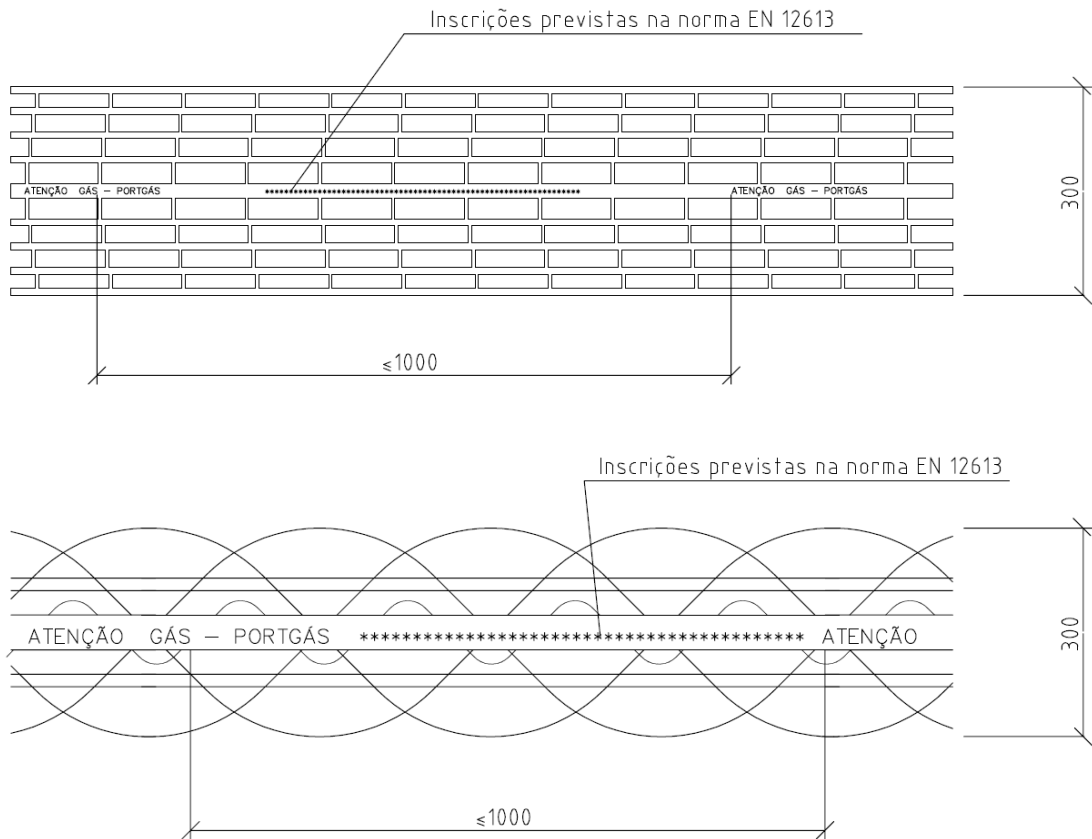
## 4. Manufacture

The warning band for marking Portgás gas pipes or other buried infrastructure shall be manufactured in accordance with standard EN 12613, complemented by the provisions of this technical specification.

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## 5. Type of warning band

- a) In accordance with the EN 12613 standard, the warning band which is the subject of this technical specification shall be of "type 2", as shown in the examples in the following figures:




N.L.: Cotas em milímetros

- b) Proposals for warning bands other than those established in this technical specification may only be used after written approval from Portgás.

## 6. Manufacturing characteristics

### 6.1. Material

The warning band shall be made of polyethylene (PE) or polypropylene (PP), always respecting the conditions established by standard EN 12613.

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## 6.2. Colour

- a) The colours recommended by REN Portgás Distribuição are based on the "RAL Colour Chart" and are as follows:
- Yellow: RAL 1023
  - Black: RAL 9005
- b) The warning strip intended to mark Portgás gas pipes or other buried infrastructure shall be uniformly coloured yellow. Its colour shall not undergo substantial changes over time.
- c) The inscriptions to be carried out on the band must be black.

## 6.3. Dimensions

- a) The width of the warning strip shall be 300 mm, with the tolerances established by EN 12613.
- b) The other dimensions shall be in accordance with standard EN 12613 for a "type 2" warning band.

## 6.4. Registration

- a) In addition to the markings recommended by standard EN 12613, the warning strip used to mark Portgás' gas pipes or other buried infrastructure must bear the words " **ATENÇÃO GÁS – Portgás** ", visible and indelible.
- b) The words "ATENÇÃO GÁS" should be inscribed at intervals of not more than 1 m, in accordance with the figures in §5 above.

## 7. Inspections and tests

It is the manufacturer's responsibility to carry out the inspections and tests set out in standard EN 12613.

## 8. Inspection documents

It is the manufacturer's responsibility to provide the inspection and testing documents established in standard EN 12613.

## 9. Packaging

The packaging must protect the warning band during handling and transport, as well as from UV rays.