



Multilayer pipe systems for gas

UNE 53008-1



Multilayer gas systems in Spain must comply with the standard UNE 53008-1 which have been referenced in the standard UNE 60670-3 “Gas installations pipework supplied at maximum operating pressure (MOP) up to and including 5 bar. Part 3: Pipework, elements, fittings and their unions”, which allows their use in gas reception facilities

The standard UNE 60670:2014 was included in 2015 July updating the reference standards of the technical instruction ITC-ICG 11 from the Technical Regulation for the distribution and use of gaseous fuels, approved by the Royal Decree 919/2006

Two standards, two certificates... the same confidence.

- **Multilayer system:** multilayer pipes, fittings and its unions and other unions to components to be used in gas reception facilities.
- Maximum operating pressure (MOP) up to and including **5 bar (500 kPa)**
- Working temperature between **-20°C y 60°C**

In Spain: UNE 53008-1



For indoor and outdoor gas installations, views and recessed. *

*Spanish legislation does not allow the installation of recessed pipes for gas

- Range of diameters from 16 to 110 mm.
- Pipe's colors:
 - **Black with yellow stripes** for indoor and outdoor installations.
 - **Yellow suitable for indoor installations.** Not suitable for outdoor use without additional protection.
 - **Yellow, suitable for indoor and outdoor installations** provided that has passed weathering resistance test (it will be marking: outdoor).
- Metallic fittings for indoor and outdoor installations
- Plastic fittings for indoor use: regressions curves are mandatory and gas condensate resistance test.



In other countries: ISO 17484-1



For indoor gas installations.

- The range of certified pipes is based on the regression curves presented by the manufacturer at the application.
- Due to the intended use indoor, the color of the pipes will be:
 - **Black with yellow stripes**
 - **Yellow**



- Metallic fittings
- Plastic fittings: regressions curves are mandatory.



Gas reception facilities is defined as the set of pipes, elements and fittings included between the gas supply valve, excluding the valve, and the appliance connection valves, included them.



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ISO 17484-1



The requirements for AENOR certification according to the standards UNE 53008-1 and ISO 17484-1 are stated in the AENOR Particular Rules RP 01.82.

Marking requirements:

Requirement	Marking	Pipe (P)	Fitting (F)	System (S)
Reference to AENOR and logotype	AENOR \aleph	P	F ¹	S ²
Number of the contract signed with AENOR	001/xxx	P	F ¹	S ²
Manufacturer or trademark	Name or symbol	P	F ¹	S ²
Internal fluid	Gas	P	F ³	
Design pressure P _D	5 bar	P		S ²
Dimensions	d _n x e _n	P		S ²
	d _n		F ⁴	S ²
Material designation (only for plastic fittings)	Example: PE-X		F	
Construction of layers and type of material (from outside to inside)	Example: PE-X/Al/PE-X o PE-RT/Al/PE-RT o PE/Al/PE	P		
Production period (date/code)	Manufacturer's own reference	P	F	
Reference to the standard	UNE 53008-1 / ISO 17484-1	P		
Identification use outdoor	Outdoor	P		
Type of union, clamp and instructions.				S ²

1. On the packaging of the fittings
2. On the technical and commercial documentation of the certified system
3. For fittings can be replaced for any yellow mark
4. If there are several pipe wall thicknesses for the same diameter of the fitting, the fitting must be marked with the thickness of the pipe it is compatible which

Put through the production samples to these controls, improves the performance and avoids costs caused by lack of quality. It provides optimal performance while avoiding additional costs: economic, social, environmental and customer complaints.

The rigor and impartiality of AENOR in its actions have made to the AENOR Mark in the voluntary quality mark strictly linked to the concept of confidence.



The best way to demonstrate to customers and users the compliance with the requirements included in the standards UNE-53008 and ISO 17484 is through AENOR certificates for multilayer systems for gas reception facilities.