Multilayer pipes

Technical data sheet

Technical data sheet of multilayer pipes for gas installations

GENERAL FITTINGS
YOUNIQUE · ITALIAN

Contents

Technical data sheet of multilayer pipes for gas installations

DESCRIPTION

Multilayer pipe is characterized by a 5-layer structure in which a butt-welded aluminum layer is enclosed between two layers of cross-linked polyethylene (PEX) and fixed to the latter by two layers of adhesive.
Thanks to this feature, multilayer pipe represents a perfect combination of the properties of plastic (cross-linked polyethylene with high mechanical resistance) and ductile metal (highly flexible aluminum), in which the qualities of PEX are added to those of aluminum, giving life to a product with extraordinary and multiple qualities.
PEX confers chemical resistance, corrosion resistance, lightness, hygiene and guarantees a very smooth and polished contact surface, thus reducing pressure drops and avoiding encrustations.
The presence of aluminum makes it possible to shape the pipe with extreme simplicity in order to significantly speed up installation and prevent the passage of oxygen inside the pipeline.
The pipe can be used in methane or LPG supply systems and is combined with the fittings of the TRIDENT series in the gas use systems proposed by General Fittings.

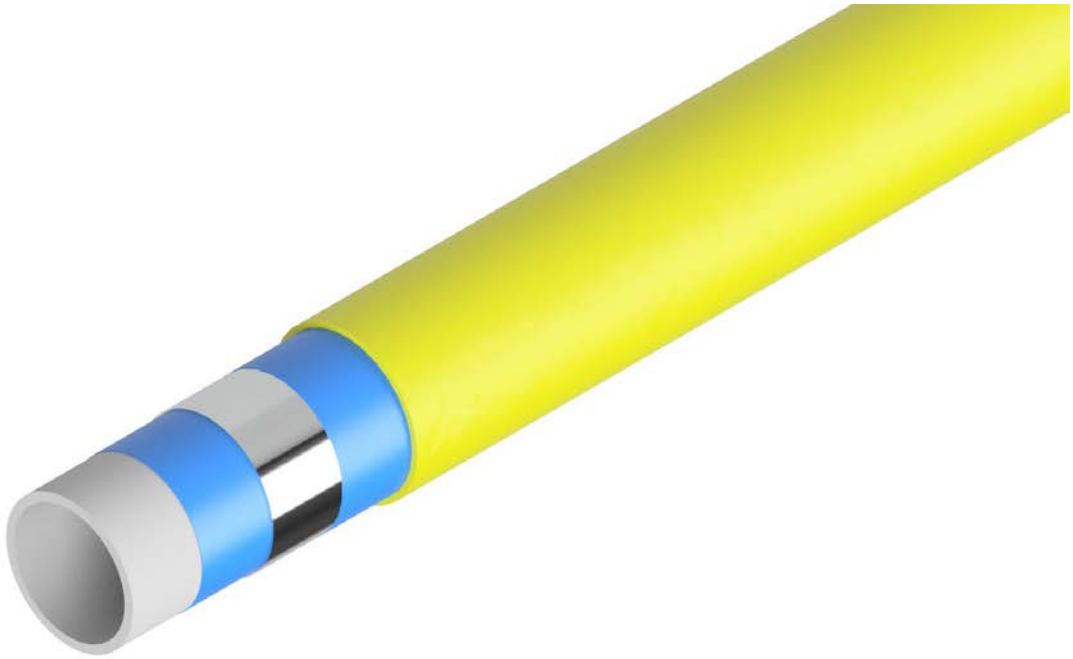
ADVANTAGES

- Allowed for gas pipelines, in countries where applicable decrees and certifications for gas are available.
- They bear a specific marking indicating the maximum applicable pressure and the KIWA UNI system certificate.
- Yellow colour as required by the reference standard UNI7129.
- They offer all the advantages of metal and plastic.
- Longitudinally welded aluminium tube core, 100 % oxygen-tight.
- Low coefficient of linear expansion.
- Fully corrosion-resistant, even against chemical and electrochemical influences.
- High resistance to pressure and temperature.
- Flexible, easy to bend.
- The pipe retains its bent shape even at low temperatures.
- Suitable for internal installations for the transport of gaseous fuels of families I, II and III according to EN 437, supplied by distribution networks, with a maximum operating pressure of 0.5 bar and an operating temperature of -20 °C.

FIELDS OF APPLICATION

APPLICATIONS		System T.	Pres. Max
	GAS / LPG	-20°C/+70°C	0.5 MOP

COMPOSITION



LAYER COMPOSITION
An internal cross-linked polyethylene tube, extruded with cross-linkable high-density polyethylene. In METALGAS the crosslinking takes place through ionizing radiation (PEX-c), while in METALGAS2 the crosslinking takes place through a silane catalyst (PEX-b)
A layer of high quality glue to ensure a homogeneous connection between the aluminum pipe and the internal PE-X pipe
An aluminum tube, longitudinally welded and electronically controlled
A high-quality adhesive layer to ensure the homogeneous connection between the aluminium pipe and the PEX-b pipe
An outer pipe in catalyst cross-linked polyethylene (PEX-b), extruded with cross-linkable high-density polyethylene
The outer layer of the pipe is yellow

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CERTIFICATIONS

COUNTRY	CERTIFICATION

REGULATIONS

• UNI 11344
Metal-plastic multilayer piping systems and fittings for the distribution of gaseous fuels for internal plants

• UNI 7129-1
Gas systems for domestic and similar use powered by the distribution network - Design, installation and commissioning

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