

UNIPRO METCO



Multilayer Piping System

for Hot & Cold Water, Solar Water and HVAC Systems

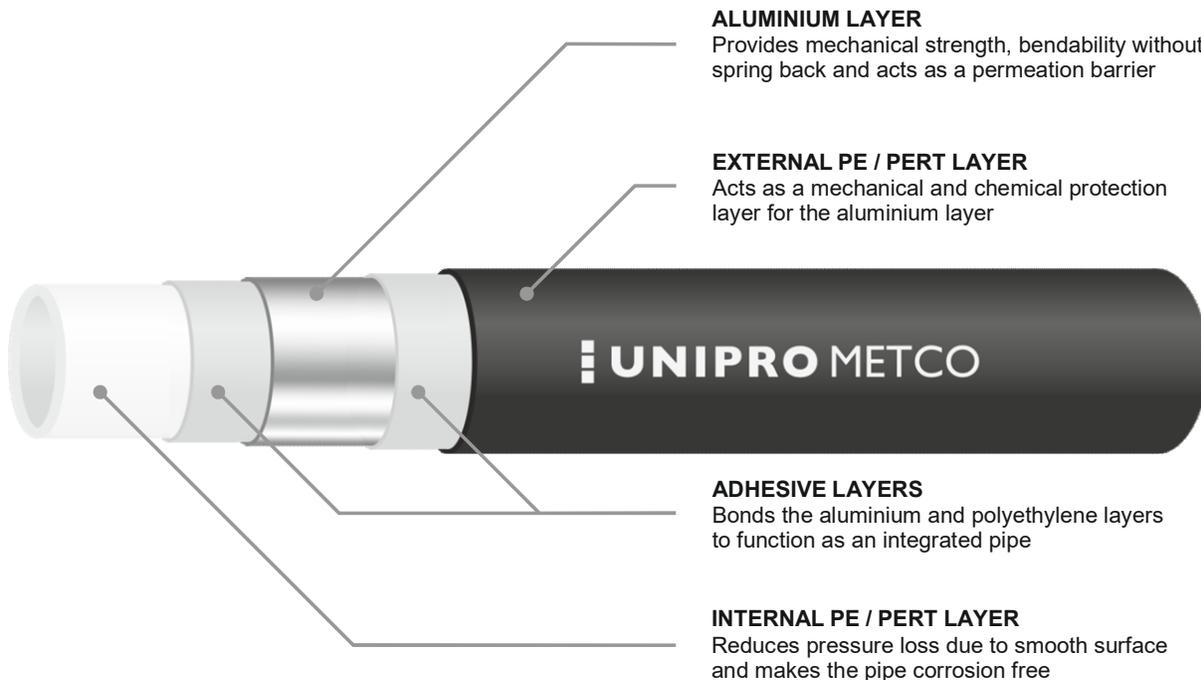
Unipro Metco is a Multilayer Composite Piping system which combines the advantages of its metal and thermoplastic materials and at the same time eliminates the disadvantages associated with these materials.

Unipro Metco is the latest innovation in piping systems being the ideal choice for Hot & Cold Water, Solar Water, Drinking Water, HVAC systems and Underfloor Heating & Cooling systems. It is manufactured as per the latest International standards and adhere to stringent quality control procedures resulting in a world class product.

Multilayer Composite pipes have many benefits such as - light weight, bendability and no need to weld, glue or thread. It is also economical in the long run and have a longer working life when compared to traditional piping systems such as Copper, Galvanized Iron and CPVC.

The installation time is significantly reduced compared to the traditional pipes leading to increased productivity and further reduction in the overall costs of the piping system.

PIPE COMPOSITION



Unipro Metco Pipe is made up of five layers. The inner layer is made of Polyethylene / PERT, with a central layer of overlap welded Aluminium, then covered by an outer Polyethylene / PERT layer. Between the aluminium and polyethylene layers are the bonding adhesive layers.

As a result of this unique combination of materials, the product is such that allows excellent properties to be reached that otherwise would not be possible in a pipe made from any single material - metal or thermoplastic.

ADVANTAGES

- Long Service life - of at least 50 years.
- Bendability - pipes can be bent manually by hand, without springing back to its original shape
- Minimum Fittings - use of elbows and couplers is reduced by upto 95% due to bendability and long length of pipe coil
- Simple installation - quick and clean installation with only basic tools, no welding, solvent cement or thread cutting required
- Permeation barrier layer - aluminium acts as a permanent barrier to the passage of alien substances
- Thermal linear expansion - upto 9 times less compared to plastic pipes and similar to that of metal pipes
- Light weight - 1/3rd weight compared to copper pipes and 1/10th of steel pipes
- UV Stabilized - for an increased durability of pipes against direct sunlight exposure.
- Corrosion resistance - Pipes have total resistance to corrosion and construction materials
- Minimum pressure loss - minimum friction due to a smooth inner surface
- Fire Retardant

APPLICATIONS

- Hot & Cold Water supply
- Drinking Water supply
- Solar Water supply
- HVAC systems
- Underfloor Heating & Cooling systems
- Chilled Water supply
- Industrial Water supply

PRODUCT RANGE - METCO PIPES



METCO

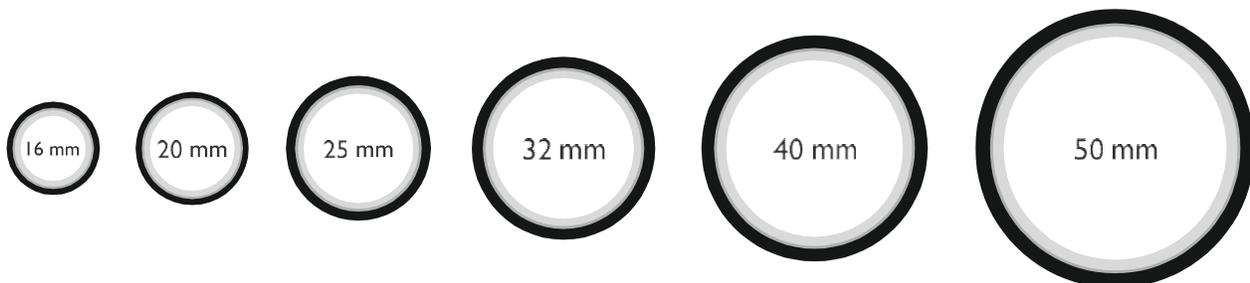
Material	Polyethylene / Aluminium
Color	Outer Layer - Black, Inner Layer - Natural
Operating Pressure	200 psi (13.8 bar) @ 23°C 160 psi (11.0 bar) @ 60°C 100 psi (6.9 bar) @ 82°C
Operating Temperature	-40°C to 82°C
Manufacturing Standard	ISO 21003 & ASTM F 1282



METCO PLUS

Material	PERT / Aluminium
Color	Outer Layer - Black, Inner Layer - Red
Operating Pressure	200 psi (13.8 bar) @ 23°C 160 psi (11.0 bar) @ 60°C 72.5 psi (5.0 bar) @ 95°C
Operating Temperature	-40°C to 95°C
Manufacturing Standard	ISO 21003 & ASTM F 1282

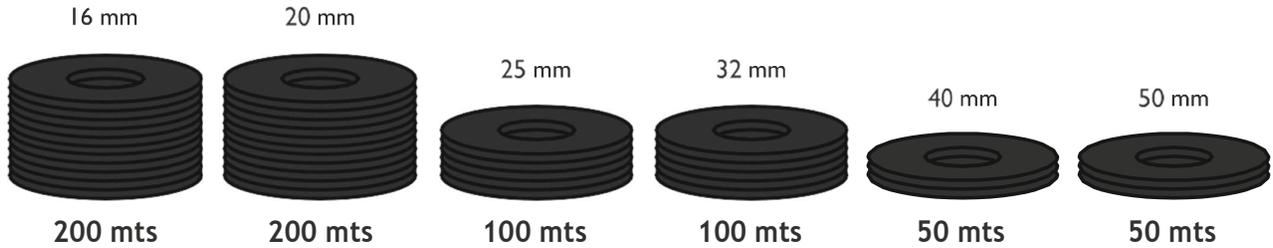
Unipro Metco Pipes are available in a wide range of sizes from 16 mm O.D. to 50 mm O.D.



Unipro Metco Pipes are manufactured as per European and American Pipe standards and as a result follow stringent quality and performance requirements. The Aluminium Layer in our pipes - which provides mechanical strength to the pipe - is **upto 33% thicker** compared to other brands. As a result, our pipes have higher burst pressures and have more stable & durable performance in the long run.

Pipe Size	Equivalent NB Pipe Size (Inches)	Outside Diameter (mm)	Aluminium Layer Thickness (mm)	Total Pipe Wall Thickness (mm)
16 mm	1/2"	16.00	0.21	2.00 +/- 0.10
20 mm	3/4"	20.00	0.26	2.00 +/- 0.10
25 mm	1"	25.00	0.30	2.50 +/- 0.10
32 mm	1-1/4"	32.00	0.36	3.00 +/- 0.10
40 mm	1-1/2"	40.00	0.40	4.00 +/- 0.20
50 mm	2"	50.00	0.50	4.50 +/- 0.20

All pipe sizes are available in coil form and the coil length varies depending on the pipe size:



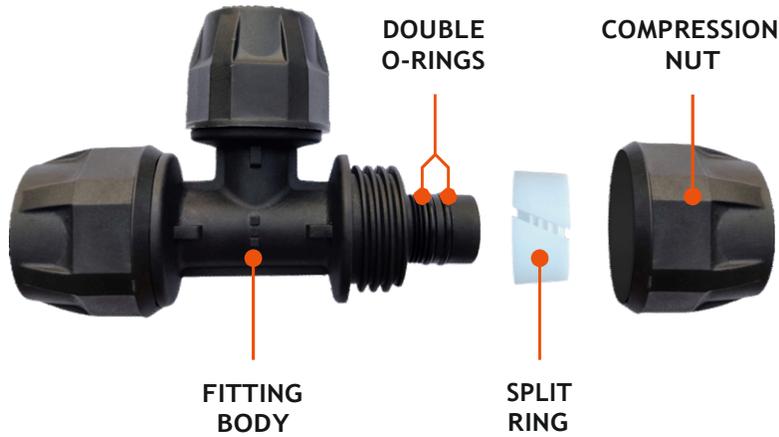
PRODUCT RANGE - GRIPTITE FITTINGS

Griptite is Unipro's state-of-the-art range of compression fittings made from Nylon with Glass filled (PA6-GF30). It is an engineered plastic ideal for heavy duty applications and thus have high Mechanical & Thermal properties. Griptite fittings are available from 16 mm to 40 mm sizes.

GRIPTITE

Engineered Plastic Compression Fittings

Components of Griptite fittings:



INSTALLATION PROCEDURE

Unipro Metco Pipes should always be installed using Unipro's Brasstite or Griptite fittings and Unipro Installation tools for best performance and applicability of Warranty. It is also important to follow each of the below steps for successful installations.



Step 1: Cut Unipro Metco Pipe at 90° angle



Step 2: Insert nut and split ring onto pipe.



Step 3: Round & Chamfer the pipe (3-5 rotations).



Step 4: Insert fitting and tighten nut with spanner to complete jointing.



Pipe Bending: Bend pipe using Internal / External bending springs.

PRODUCT WARRANTY

Unipro's products are manufactured using the best raw materials, latest processes and as per international product standards.

We provide a 10 years warranty on pipes & fittings against any manufacturing defect subject to the following Terms and Conditions:

- Warranty is applicable only when Unipro Pipes (Metco or Metco Plus) and Unipro Fittings (Brasstite or Griptite) are used together in combination. Warranty will be void in case of use with pipes or fittings of other brands.
- Unipro's Installation procedure is followed and Unipro Tools are used for installation.
- Unipro piping system is used within the defined Operating pressures and temperatures.
- Unipro provides free replacement of faulty products under this warranty and is not liable for any other costs incurred directly or indirectly.
- The warranty does not cover faulty workmanship.



**WARRANTY AGAINST
MANUFACTURING DEFECT***

*subject to Terms & Conditions



Unipro's fittings are designed using the Safe Seal Technology according to which the fittings are made in such a manner that both the O-rings ensure an optimal seal on the Pipe. As a result Unipro's piping system performs effectively at high pressures.



Dual-Grip Technology is another innovation from Unipro. The fittings are designed in such a manner that it grips the pipe from both the inner layer and outer layer providing increased strength to the joint. As a result, each joint is more secure and can operate at high pressures without any worries.

ITEM LIST

■ GRIPTITE ENGINEERING PLASTIC COMPRESSION FITTING

EQUAL UNION



Size	Part No
16 x 16	UPC-EU1616
20 x 20	UPC-EU2020
25 x 25	UPC-EU2525
32 x 32	UPC-EU3232
40 x 40	UPC-EU4040

UNEQUAL UNION



Size	Part No
20 x 16	UPC-UU2016
25 x 16	UPC-UU2516
25 x 20	UPC-UU2520
32 x 16	UPC-UU3216
32 x 20	UPC-UU3220
32 x 25	UPC-UU3225
40 x 16	UPC-UU4016
40 x 20	UPC-UU4020
40 x 25	UPC-UU4025
40 x 32	UPC-UU4032

FEMALE UNION

WITH BRASS THREAD



Size	Part No
16 x 1/2"	UPC-FU1604B
20 x 1/2"	UPC-FU2004B

MALE UNION

WITH PLASTIC THREAD



Size	Part No
16 x 1/2"	UPC-MU1604P
20 x 1/2"	UPC-MU2004P
20 x 3/4"	UPC-MU2006P
25 x 1/2"	UPC-MU2504P
25 x 3/4"	UPC-MU2506P
25 x 1"	UPC-MU2508P
32 x 1 1/4"	UPC-MU3210P
40 x 1 1/4"	UPC-MU4010P
40 x 1 1/2"	UPC-MU4012P

MALE UNION

WITH BRASS THREAD



Size	Part No
40 x 1 1/4"	UPC-MU4010B
40 x 1 1/2"	UPC-MU4012B

EQUAL ELBOW



Size	Part No
16 x 16	UPC-EL1616
20 x 20	UPC-EL2020
25 x 25	UPC-EL2525
32 x 32	UPC-EL3232
40 x 40	UPC-EL4040

FEMALE ELBOW

WITH BRASS THREAD



Size	Part No
16 x 1/2"	UPC-FL1604B
20 x 1/2"	UPC-FL2004B

EQUAL TEE



Size	Part No
16 x 16 x 16	UPC-ET161616
20 x 20 x 20	UPC-ET202020
25 x 25 x 25	UPC-ET252525
32 x 32 x 32	UPC-ET323232
40 x 40 x 40	UPC-ET404040

UNEQUAL TEE



Size	Part No
20 x 16 x 16	UPC-UT201616
20 x 16 x 20	UPC-UT201620
25 x 16 x 20	UPC-UT251620
25 x 16 x 25	UPC-UT251625
25 x 20 x 25	UPC-UT252025
32 x 16 x 25	UPC-UT321625
32 x 16 x 32	UPC-UT321632
32 x 20 x 32	UPC-UT322032
32 x 25 x 32	UPC-UT322532
40 x 16 x 40	UPC-UT401640
40 x 20 x 40	UPC-UT402040
40 x 25 x 40	UPC-UT402540
40 x 32 x 40	UPC-UT403240

FEMALE TEE

WITH BRASS THREAD



Size	Part No
16 x 1/2" x 16	UPC-FT160416B
20 x 1/2" x 20	UPC-FT200420B

PIPE END



Size	Part No
40 x 40	UPC-PE40

NOTES

Disclaimer: All Information given in this Brochure are reliable, accurate and in good faith, however due to continuous Product Research & Development undertaken by

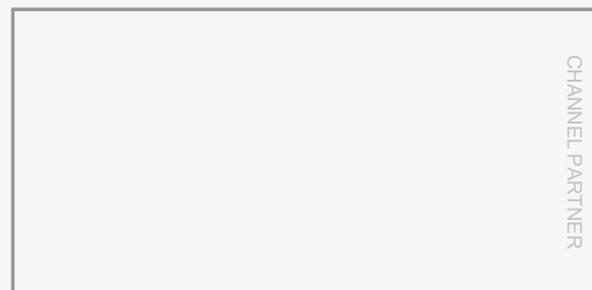


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