

# PPR tube **TUBOGAREN PLUS**



**Tubogaren**  
Plus

**GAREN**

**TUBOGAREN PLUS** is an integral system of pipes and connections made of **Random Polypropylene (PP-R)** that, together with thermofusion and cutting tools, cover all the needs for a hydraulic installation in homes, buildings and industries with measures of: **20, 25, 32, 40, 50 and 63mm**



# Characteristics

## TUBOGAREN PLUS

Tubogaren Plus is designed to work constantly with high temperatures up to 90 ° C.



# Advantages

## TUBOGAREN PLUS

### Zero leaks and total security in the joints

Due to its thermofusion system, Tubogaren Plus guarantees zero leakage installations.

### High durability

Tubogaren Plus is designed to work constantly with high temperatures up to 90 ° C and pressures up to 16Kgf / cm<sup>2</sup> at 20 ° C, as well as in extreme weather conditions.

### High resistance

Hit it, crush it. Due to the great flexibility of its manufacturing materials, Tubogaren Plus does not deform or break.

### Efficiency in handling cold or hot water

Because it is an excellent thermal insulator, Tubogaren Plus allows for greater comfort and considerable savings of gas or electrical energy.

## PRESIÓN

Clase 10  
10 kgf/cm<sup>3</sup> a 20°C

Edificaciones de 23 pisos  
equivalentes a 71 mts. de  
altura.

Clase 16  
16 kgf/cm<sup>3</sup> a 20°C

Edificaciones de 37 pisos  
equivalentes a 112 mts. de  
altura.

### Zero corrosion

Thanks to the high quality of its components, Tubogaren plus better resists hard water aggression and can withstand external contact with chemical, acid and alkaline substances (PH from 1 to 14).

### Keeps water quality

Tubogaren Plus is manufactured with non-toxic raw material. It complies with the highest sanitary standards, which allows maintaining an unsurpassed level of drinkability in the transported water by not adding color, taste or smell. (Complies with FDA standard).

### AB antibacterial and UV ultraviolet outdoor additives

In its manufacturing process Tubogaren Plus has an additive AB (Antibacterial) and UV (ultraviolet), which allows its installation outdoors and its exposure to sun. The UV outer layer gives the pipe an outdoor service life of at least 30 years.

# Thermofusion

## PROCESS

The Thermofusion process is safe, fast and simple. Through a power tool called thermofuser. The tube and the connection are heated to 260 ° and join together forming a single indissoluble and highly resistant piece.

To carry out this process, the following steps must be followed:



### Measure

Set the desired tube distance, plus insertion to the coupling, depending on the diameter of the tube.

#### Insertion depth

Tube and connection diameter (mm)	Insertion depth in dice (mm)
20	12
25	13
32	14.5
40	16
50	18
63	24



### Cut

Use **GAREN scissors\*** to make a straight cut and avoid burrs.



\*GAREN scissors



## Heat

Connect the **Tubogaren Plus Thermofuser** and allow it to reach its operating temperature of (260 ° C).

Simultaneously insert the tube and connection to the mark in their respective dice, holding both in a perpendicular way to the Thermofuser plate. Warm-up times start at count when the pipe and fittings were introduced till the marks (see attached table).

It is important to keep in mind that the warm-up time starts to measure as soon as the tube and the connection entered the dice correspondents and finished putting pressure on them.

Tube and connection diameter (mm)	Heating time (seconds)	Maximum interval for coupling (seconds)	Cooling time (seconds)
20	5	4	2
25	7	4	2
32	8	6	4
40	12	6	4
50	18	6	4
60	24	8	6



## Bond

When the heating times have expired, immediately remove the tube and the connection and insert the tip of the tube into the connection.

The coupling must be straight and must be inserted up to the mark on the connection. **Don't turn the coupling**

Following these steps, we guarantee a Zero Leakage system, since the union between the tube and the connection becomes a single piece.

# CONNECTIONS



90° elbow



Coupling



45° Elbow



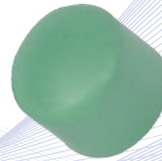
Tee



Tee with  
reduction



Reduction



Cap



Female connector



Male connector



90° elbow  
Female Thread



90° elbow  
Male Thread

**GAREN**