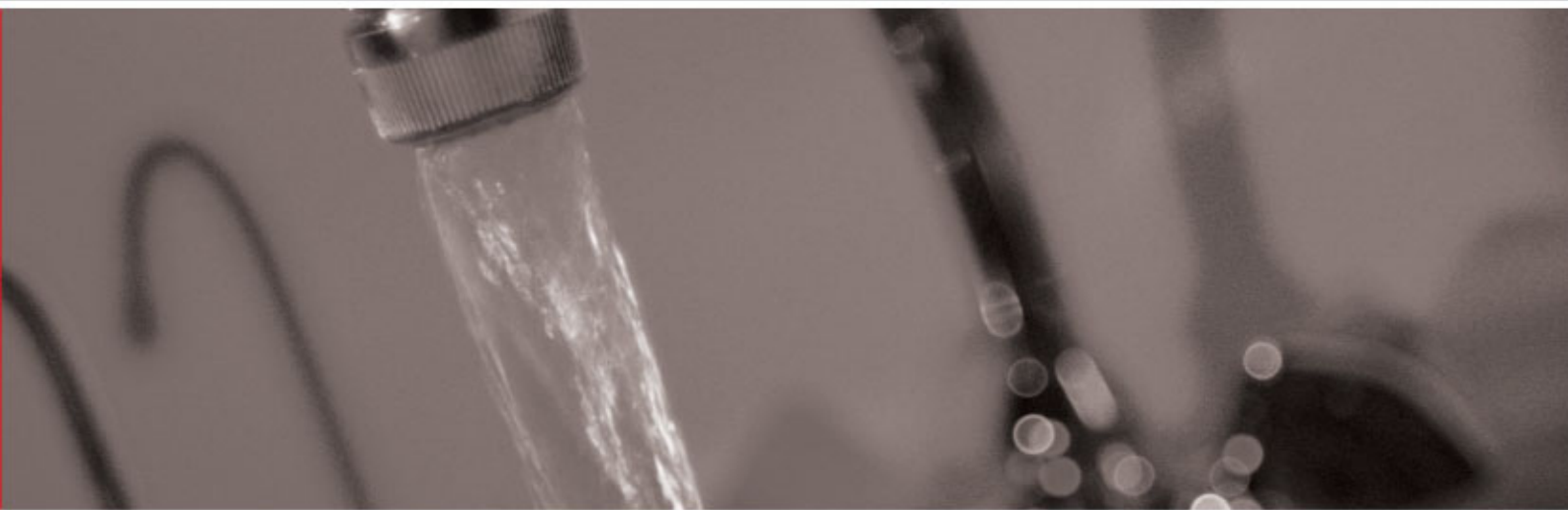


Thermopex[®]



Clean, Safe, Reliable



Pioneer In Plastic Piping Network Since 1984

Thermopex[®]

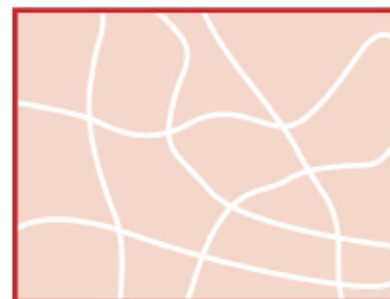
Introduction

World Plastics is the leading company in the development and manufacture of advanced piping systems since 1984. Our uniquely wide-range of large and small bore piping systems are capable of handling a wide variety of materials in both industrial and domestic applications including water, waste fluid, gas, and chemicals in addition to manufacturing piping systems for electrical installations. Pipes are manufactured from high quality raw material using some of the most advanced production techniques in the world, according to the existing standards. Our commitment to quality extends to customer support and service. You will find us more than willing to help in the design of the system, and offer engineering counseling in developing a piping network that meets particular needs

What is Thermopex ?

Thermopex is a cross linked polyethylene PEX is an acronym for cross-linked polyethylene. PE is modified with bonds that are introduced chemically or physically between the long polymer chains to create a three dimensional network. Through reactions, manufacturers structurally modify the polyethylene chains, significantly improving performance on properties like high-temperature strength, and chemical resistance, abrasion and stress-crack resistance. The resulting flexible pipe has greater impact and tensile strengths, improved creep resistance, and performs extremely well at high temperatures and pressures.

Thermopex is a cross linked polyethylene (PEX) product manufactured according to DIN 16892/16893 and JS(Jordanian Standard) 1021/22/23 .



Advantages & applications

Advantages

- No corrosion
- Increased maximum operating temperature.
- Improved aging resistance.
- Improved chemical resistance.
- Increased abrasion resistance.
- Improved impact strength.
- Reduced rapid crack propagation (RCP) even at low temp.
- Outstanding resistance to slow – crack growth.

Applications

- District-heating.
- Domestic hot and cold water.(operating pressure and temperature can with stand and operating pressure up to 60 bar for 50 years of service life @ 20 Co
- Air – conditioning systems.
- Under floor heating.
- Central heating.
- Transport of industrial gases, compressed air and fluids.
- Process engineering and other specialized applications.
- Natural gas supply in extreme ambient conditions.

Please see table below for compared values of operating pressure

Operating Temperature (°C)	Service Life (Years)	Operating Pressure (Bar)
20	50	16
40	50	10.4
60	50	8.0
70	50	7.0
80	25	6.0
90	10	5.5
95	10	5.0

Thermax

Procedure for Thermopex Installation

Thermopex Installation Procedure can be summarized as the following:

- 1- Cut the required length, using the pipe cutter; make sure that the surface is perpendicular to the pipe longitudinal axis.
- 2- Use approved type of fittings to join pipes.
- 3- Use the appropriate sleeve dimension in accordance with each pipe size.
- 4- Install Thermopex away from direct sunlight or other Ultra-Violet (UV) sources.
- 5- Check the system for leakage by venting the system and applying pressure

Thermopex Fittings

The fittings types that should be used for the pipes are Brass Fittings, Picture (1) shows the different parts, as follows: Nut, compression ring, insert and Nipple.

Fittings Installation Procedure:

- 1- After cutting the required pipe length, select the fittings according to the pipe outside diameter and thickness.
- 2- Put in the Nut.
- 3- Place the compression ring as shown in picture (1).
- 4- Enter the insert in the pipe.
- 5- Assemble the nut with the nipple as shown in picture (2). In practice, the nipple is to be fixed to other fittings (Manifold), then the nut is assembled to it after being fitted to the pipe.



(1)



(2)

Standard Dimensions

Thermopex is manufactured in the following dimensions according to DIN 16893

OD X thickness (mm)	ID (mm)	Standard Lengths (m)
16 X 2.0	12.0	50/100
20 X 2.0	16.0	50/100
25 X 2.3	20.4	50
32 X 3.0	26.0	50

▪ OD: outside diameter

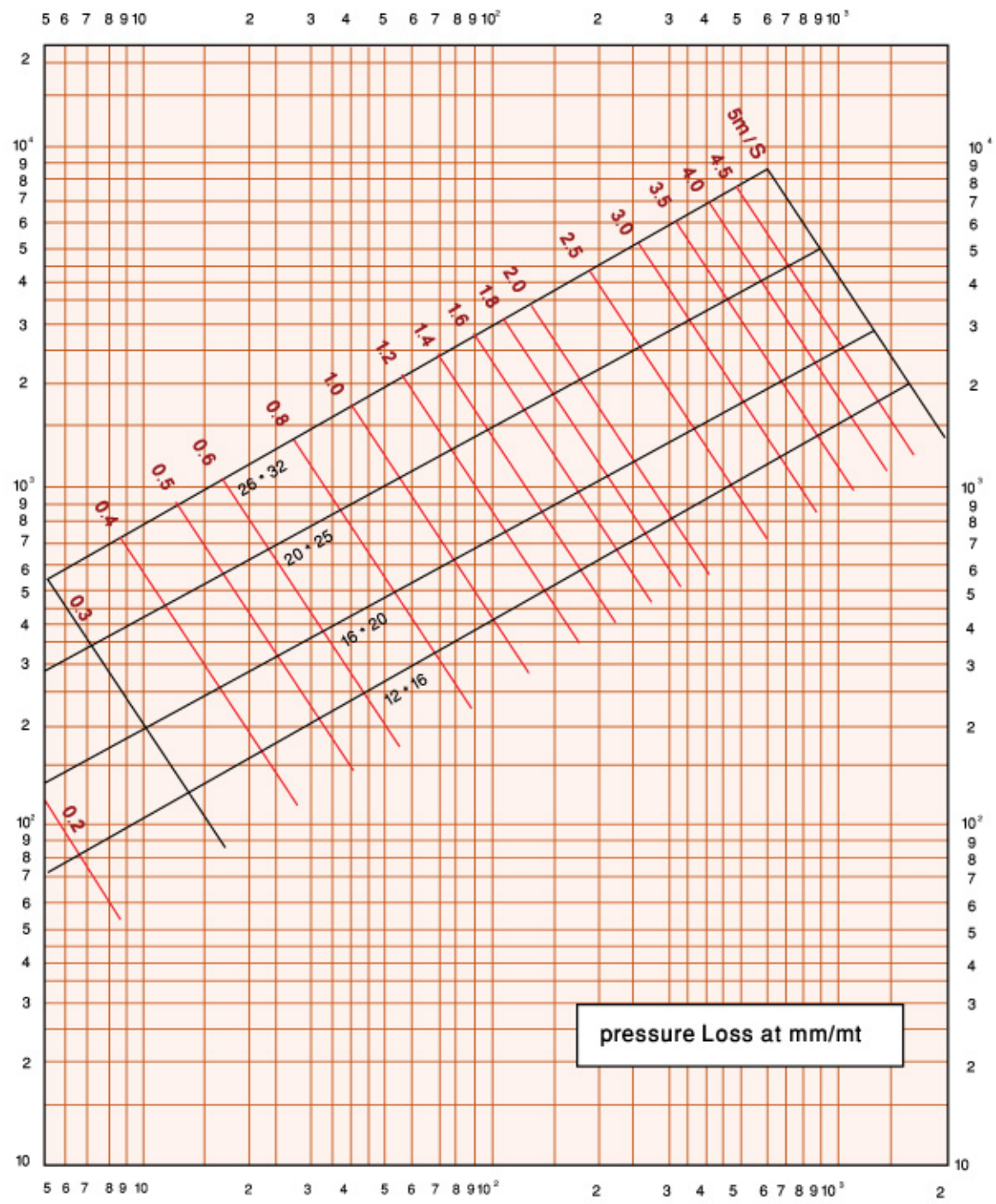
▪ ID: Inside diameter

- Other dimensions & pipe lengths adapted to norms are available upon request.
- Thermopex, natural color is white; other colors (Black, Red) are available upon request.



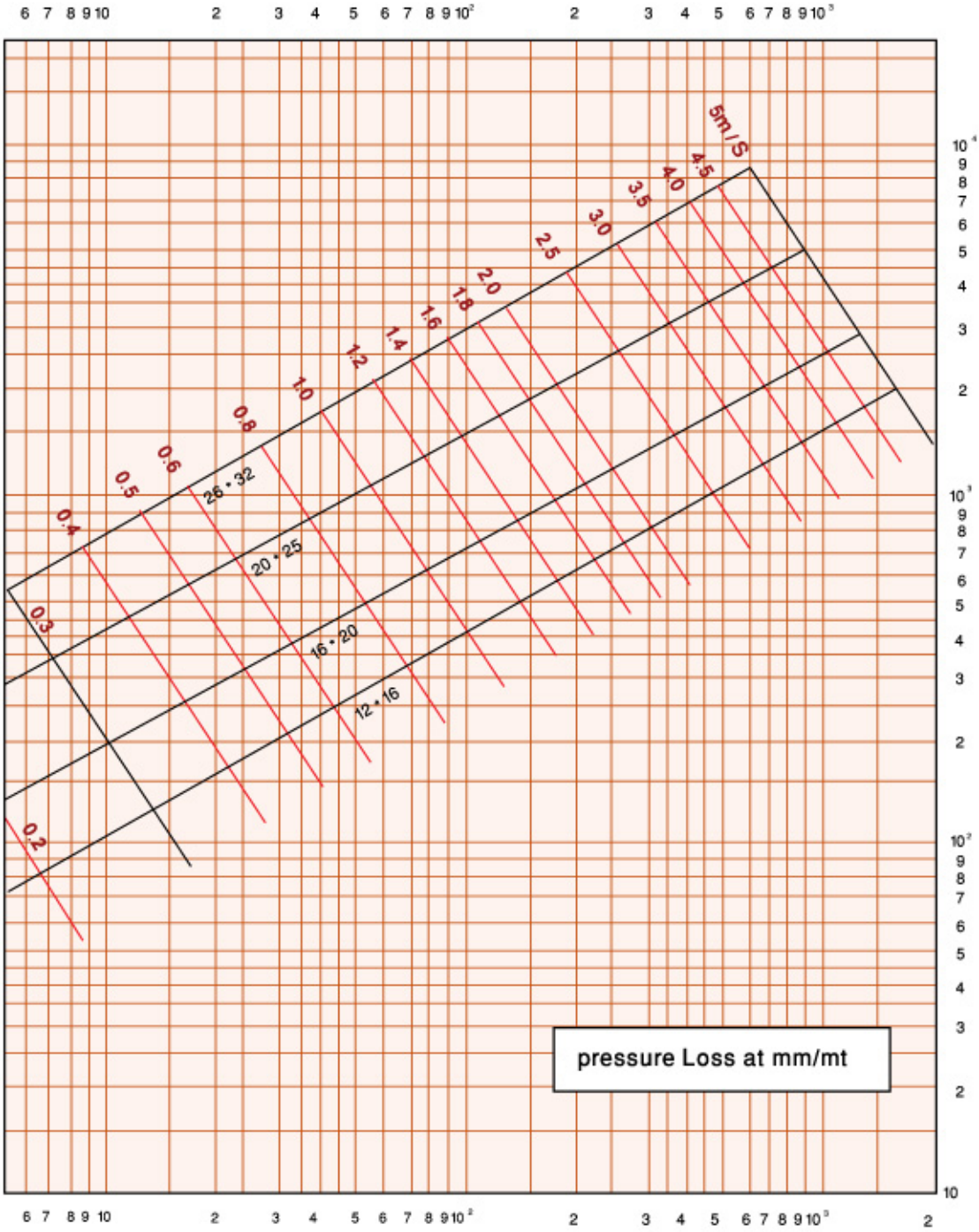
Thermopex

Water Temperature +50 °C



PRESSURE MONOGRAM

Water Temperature +80 °C

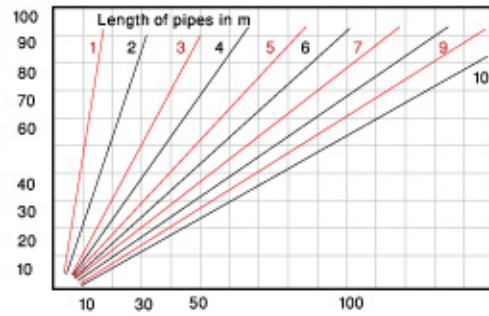


PRESSURE MONOGRAM

Thermopax

Fast & Easy Workability

Lightness & flexibility of Thermopex pipe, together with its complete range of fitting, permit an easy & fast construction of the hydro thermo sanitary installations.



Physical, Mechanical & Thermal properties

Properties	Unit	Value
Density	g/cm ³	(0.915-1.4)
Thermal conductivity	W/m.k	0.41
Coefficient of Linear Expansion	m/m.c	
20°C		1.4 x 10 ⁻⁴
100°C		2 x 10 ⁻⁴
Specific Heat Capacity	KJ/Kg.C	2.3
Impact Strength	KJ/m ²	
20°C		No break
-20°C		No break
UV light resistance		Good

Quality That Lasts

World Plastics founded in 1984 was the first Jordanian company to manufacture plastic pipes. Our range of pipes cover a wide area of applications, including, sanitary, heating, potable water networks We are the only local company, to produce multi-layer pipes, with Oxygen diffusion barrier.

The quality control procedure starts from raw materials to the time of delivery. In 1996 World Plastics attained the quality management system certificate ISO 9002, for satisfying the requirements of the quality management system. Our customers now have clear confirmation that

all our processes are properly regulated and consistently applied.

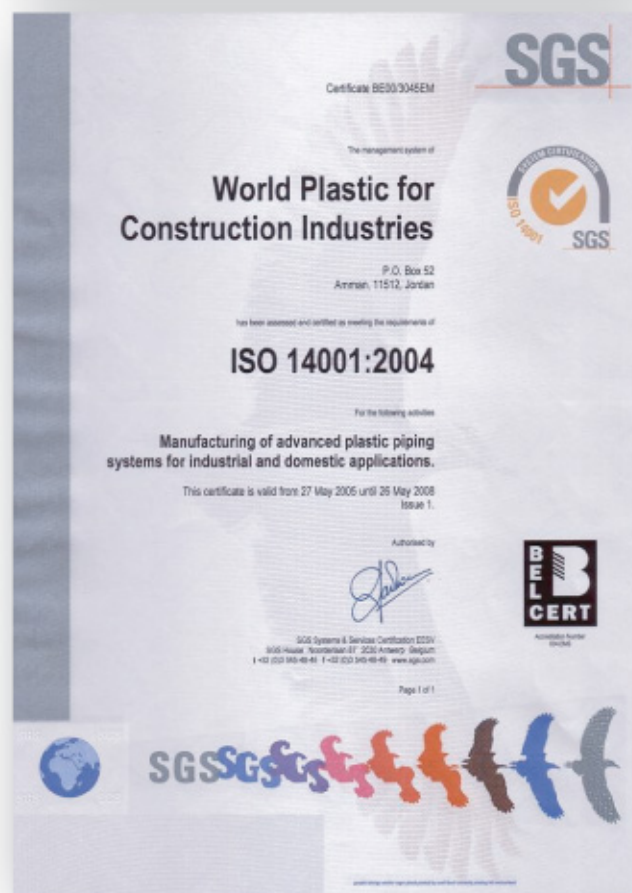
In its search for reducing environmental liability and risk, helping to maintain consistent compliance with legislative & regulatory requirements, up was given certificate of ISO 14001 in year 2001, after incorporating environmental aspects into operations and product standards.

The ISO 14001 standard specifies requirements for establishing an environmental policy, determining environmental aspects & impacts of products/activities/services, planning environmental objectives and measurable targets, implementation & operation of programs to meet objectives & targets, checking & corrective action, and management review.

All information are subjected to modification without prior notice

All the information are for general knowledge, for technical support please contact the company.





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