



**SOLIN S.A.**



SOLIN S.A. with its 25 years knowledge in the manufacturing procedure, the advanced machinery, the specialised staff and the constant quality control before, during and after production, produces pipes that are amongst the top quality of their kind in the international market. That proves their high demand and their constant exports increase in countries such as East and West Europe, USA, Canada, Middle East, New Zeland, China, Sri Lanka, Scandinavia, Balkan countries and so on. SOLIN S.A. is certified from TÜV HELLAS for quality management according to ISO 9001/2008.

EUROPEX pipe has the following certificates:  
SKZ, MPA-NRW, ITS, WRAS CSA, NSF, ELOT



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**APPLICATIONS**

floor heating & cooling

heating radiator system

wall heating & cooling

ceiling cooling & heating

potable water plumbing

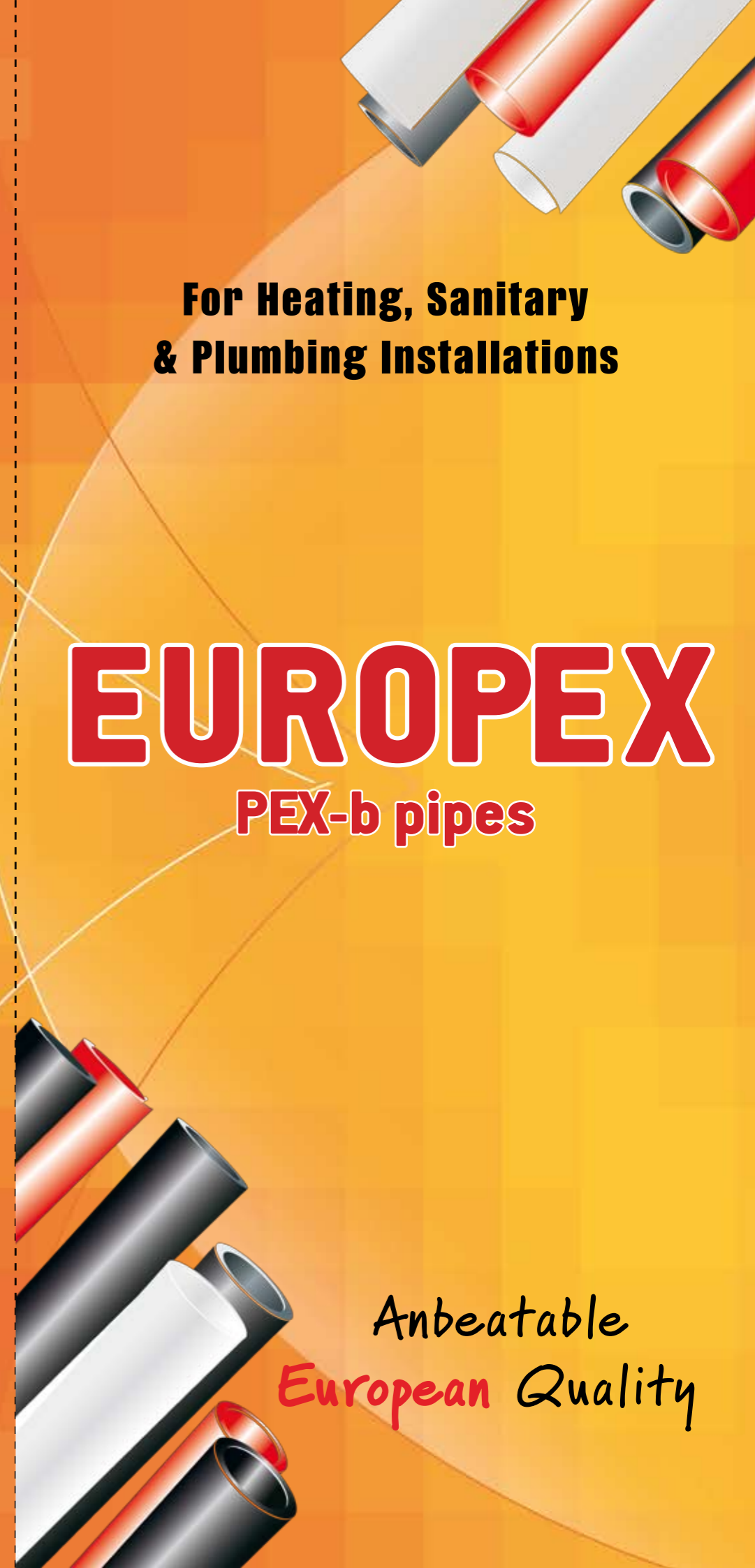
ice melting systems

industrial applications

**For Heating, Sanitary & Plumbing Installations**

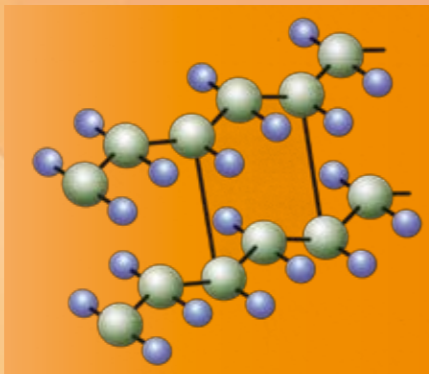
**EUROPEX**  
PEX-b pipes

Anbeatable  
European Quality





EUROPEX pipes are produced by high density polyethylene and are cross linked by SILAN method (PEX-b), with a cross linking percentage more than 72%, by using last generation's raw materials, of german origin that meet the requirements of ASTM F876-99a, ASTM F877-99a, EN 15875, DIN 16892/16893.



They are manufactured by SOLIN S.A. since 1986, in different length of coils (from 50-600m) and in the following dimensions:

### For European market

According to the European Norms EN 15875, but also with other countries national standards like DIN 16892-16893 (german standards) (10x1,4), (12x2), (14x2), (15x2), (15x2,5), (16x2), (16x2,2), (17x2), (18x2), (18x2,5), (20x2), (20x2,8), (22x3), (25x3,5), (28x3), (32x3).

### For the British market:

According to British Standarts 7291 part-3  $\Phi$ 15,  $\Phi$ 16,  $\Phi$ 22 and  $\Phi$ 28.

### For American market

According to Canadian standards CSA B137,5 and American ASTM F876/877

Nominal Size	Inner DIA	Outer DIA
3/8"	0,36"	0,5"
1/2"	0,485"	0,625"
5/8"	0,584"	0,75"
3/4"	0,681"	0,875"
1"	0,875"	1,125"

Packing: coils 100, 250, 300, 600 and 1000 ft and sticks 20 ft

Designed stresses and pressure rating for PEX SDR9 water distribution system obtained in accordance with CSA B137,5

Rated temperature	Hydrostatic Design Stresses	Pressure Rating for Water
73,4°F 23°C	630psi 43Atm	160psi 11Atm
179,6°F 82°C	400psi 27Atm	100psi 6,8Atm
199,4°F 93°C	315psi 21Atm	80psi 5,4Atm

### ADVANTAGES-PROPERTIES

- ✓ High mechanical strength
- ✓ Minimised pressure loss, due to smooth inner surface
- ✓ Excellent thermal properties
- ✓ Resistant to corrosion and chemicals
- ✓ Light, flexible and economical
- ✓ Tight
- ✓ Silent
- ✓ Non Toxic
- ✓ Certified by international institutes
- ✓ Longevity
- ✓ Guaranteed for 10 years of continuous operation



## EUROPEX pipes, according to their application, are available in the following types:



### Single EUROPEX

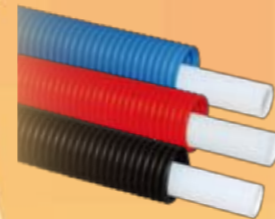
High density cross linked polyethylene PEX-b

### EUROPEX-NOXY

High density cross linked polyethylene PEX-b with oxygen barrier of three or five layers. The oxygen barrier prevents the entrance of oxygen in the water circulation, so the corrosion of the metal parts of the system is avoided. The oxygen barrier is achieved by a special material (EVOH), that either is externally bonded (3 layers) or in the middle of the thickness (5 layers).



### EUROPEX with outer corrugated pipe



The cross linked polyethylene pipe PEX-b is inside of a corrugated HDPE pipe, that offers mechanical protection, easy replacement of the inner pipe in case of damage, reduce of thermal losses and absorption expansion capacity.

### EUROPEX with insulation

The cross linked polyethylene pipe PEX-b is also available with insulation of 9mm.

This insulation is made of expanded closed-cell polyethylene, which is coated by a special moisture resistant film of white colour, that offers UV protection.

By minimising the heat loss, it is advisable for outdoor use with resistance in solar radiation and resistance in adverse weather conditions.

**NOTE: The Europex pipes can be produced in any color, according to the customer's requirement.**



## Pressure Drop Table (psi / ft of pipe)

Volume flow	Nominal pipe diameter (inches)			
	1/2"	5/8"	3/4"	1"
<b>GPM</b>				
1	0,016	0,007	0,003	0,001
1.5	0,034	0,014	0,006	0,002
2.2	0,069	0,034	0,013	0,004
2.5	0,087	0,043	0,016	0,005
3	0,122	0,050	0,023	0,007
3.5	0,162	0,080	0,030	0,009
4	0,208	0,100	0,039	0,011
5	0,314	0,154	0,059	0,017
6	0,440	0,181	0,082	0,024
7	0,586	0,287	0,109	0,032
8		0,368	0,140	0,041
9		0,457	0,174	0,051
10		0,556	0,211	0,062

\*Indicates 8fps maximum velocity required by some plumbing codes  
NOTE: Maximum flow for each size based on 12 fps velocity  
PSI x 2,307 = head loss

## INSTALLATION INSTRUCTIONS

### Storage and Handling

Pex tubing shall be stored under cover to avoid dirt accumulation, long-term exposure to sunlight and to ensure that abuse, such as abrasion on concrete or crushing, is avoided

### Pressure Testing

A pressure test with water at 100psi (6,8 Atm) on the system, excluding the hot water heater, is advisable to test for fitting leakage.

### Repairs

If a leak is discovered, that portion of the system shall be drained and the leaking part shall be cut out, using the designed pipe cutter, so that the cuts are vertical and free of burrs. The tubing shall be thoroughly dried and a mechanical fitting -and if necessary- a short length of tubing, shall be installed.

### Hot Bending of Tubing:

For doing hot bending in PEX pipes, we can either heat the pipe by a hot air gun with diffuser nozzle of controlled temperature, until it becomes translucent, or by circulating of hot water inside the pipe.  
**ATTENTION:** The open flame use is forbidden.

### Minimum Bend Radius for PEX

Nominal Tube Size	Bend Radius
3/8"	3"
1/2"	3,75"
5/8"	4,5"
3/4"	5,25"
1"	6,75"

The bend radius has to be 6 x D at 68 °F ( 20 °C), when D=Nominal outer diameter + 1/8" (0,32cm)

### Thermal Expansion

The linear expansion rate for PEX is approximately 0,05ft/50° F (15mm/10° C) temperature change for each 33ft (10m) of tubing. When installing long runs of tubing, allow 0.03-0,05ft (10-15mm) in longitudinal clearance per 3,28ft (per meter) of run to accommodate thermal expansion.  
**Do not** anchor rigidly to a support. Allow the freedom of movement.

### Underfloor heating

In underfloor installations of heating and sanitation, the pipes **must** have oxygen barrier

### Heating radiator systems

In heating radiator system instalations, the PEX-pipe should be always installed in the designed corrugated conduit, so that the inner pipe is protected against damage. It must have the possibility to expand and contract freely, so to be replaced easily in case of damage or harm.

### Frost

In case of frost, the evacuation of the outdoor installed tubes is recommended, in order to avoid frozen water in the tubing, that could cause pressure within the system and thus become excessive and finally ultimately rupture the tubing.