



About Us

SOLIN S.A. is a company that produces composite and plastic pipes as well as fittings for a wide range of applications. Since its establishment, SOLIN's primary and integral purpose is to produce high quality products.

We strongly believe that the success of a business comes from its people. Our employees are our most important asset and the driving force of SOLIN. With their dedication and hard work, they contribute to the achievement of our mission, which is the continuous development and evolution of our company. We invest in them through continuous education and training. Our team consisting of 80 employees has as a daily task to comply with the company's philosophy, which is our customers' satisfaction.

SOLIN is based in Greece, with the head offices, including administration offices and several warehouse spaces being located in Athens, while our factory, with our main warehouse, is located in the A' Industrial Area of Volos with buildings of 17.500m², in a total plot extent of about 33.000m².

In the course of almost 40 years in the manufacturing field, having gained the experience and knowledge as expertise, we are proud that our products are among the top of their range in terms of quality within the international market. SOLIN provides practical, reliable and enduring solutions to multiple applications, always aiming to support its customers in the best way.



More than 35
Active years



Of our production
is exported



ISO certificate
since 2000

Exports to
40 countries
worldwide



Certifications from
international institutes

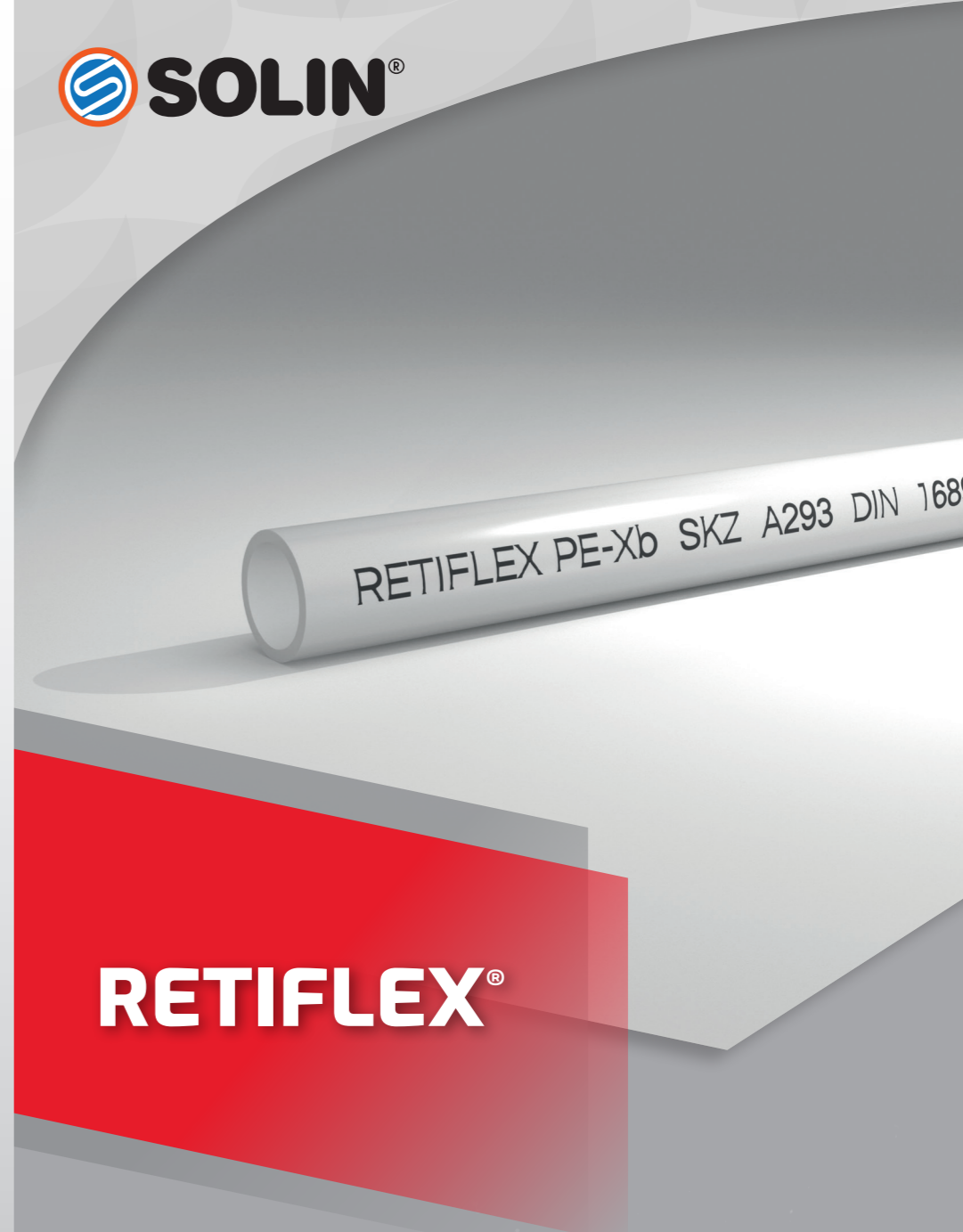


SOLIN S.A.
PRODUCTION OF PLASTIC PIPES

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RETIFLEX[®]

PE-Xb CROSS-LINKED POLYETHYLENE PIPES

SUITABLE FOR APPLICATIONS



HEATING



SANITATION



COOLING



UNDERFLOOR
HEATING



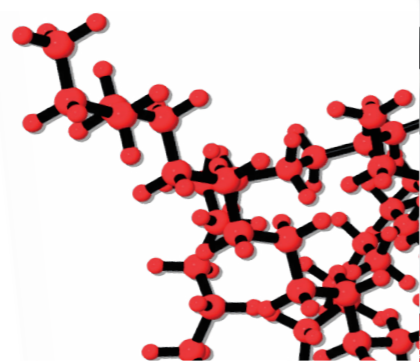
SOLAR
HEATING

TECHNICAL INFORMATION

RETIFLEX pipes are produced from high density polyethylene (PE-Xb) and are cross linked by SILANE method (also called the "moisture cure" method) in which the molecules of polyethylene are bonded to form more complex structure. RETIFLEX pipes are produced by last generation's raw materials of German origin according to the following requirements and relevant specifications:

- EN ISO 15875
- DIN 16892/16893
- ASTM F876/877
- CSA B137.5

The cross linking degree, that is more than 65% and could be increased to 75% over time, gives the excellent thermal properties to RETIFLEX pipes and improves many of their features, such as resistance to high temperatures, mechanical resistance through time, resistance to corrosion and chemical substances.



LIFE DURATION							
OPERATION TIME (with SF 1,25)		50y	50y	50y	50y	25y	10y
TEMPERATURE		10°C	20°C	40°C	70°C	80°C	90°C
DIMENSION	10x1,4	28.0	24.8	19.5	13.9	12.6	11.4
	15x2,5	34.4	30.5	24.0	17.1	15.5	14.0
	16x2	24.6	21.8	17.2	12.2	11.0	10.0
	16x2,2	27.5	24.3	19.1	13.6	12.3	11.2
	18x2	21.5	19.0	15.0	10.7	9.7	8.8
	18x2,5	27.8	24.6	19.4	13.8	12.5	11.3
	20x2	19.1	16.9	13.3	9.5	8.6	7.8
	20x2,8	28.0	24.8	19.5	13.9	12.6	11.4
	22x3	27.2	24.1	19.0	13.5	12.2	11.1
	25x2,3	17.4	15.4	12.2	8.7	7.8	7.1
	25x3,5	28.0	24.8	19.5	13.9	12.6	11.4
	28x3	20.7	18.3	14.4	10.3	9.3	8.4
	32x3	17.8	15.8	12.4	8.8	8.0	7.3

PRESSURE IN BAR

MECHANICAL PROPERTIES	Units	Value
Tensile strength	MPa	21
Elongation at break	%	550
Impact strength (20°C)	KJ/m ²	No breakage
Tensile modulus of elasticity (20°C)	MPa	>550

RETIFLEX pipes are certified for their mechanical resistance, their suitability for use in drinkable water networks and for their oxygen barrier, from international institutes such as SKZ, WRAS, MPA, etc.

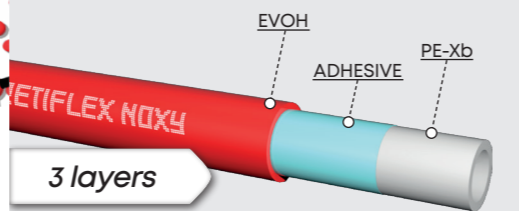


AVAILABLE TYPES



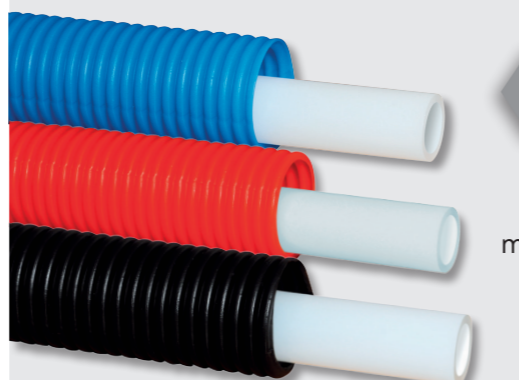
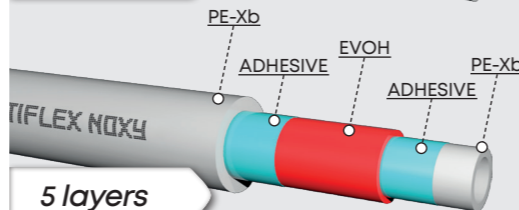
SINGLE RETIFLEX

High density cross linked polyethylene PE-Xb pipe



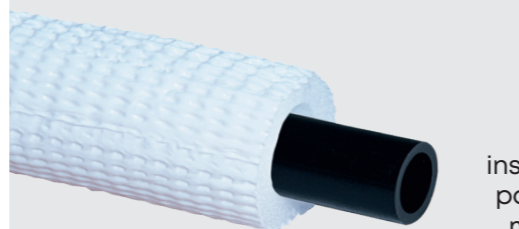
RETIFLEX-NOXY

High density cross linked polyethylene PE-Xb pipes with oxygen barrier of three or five layers, suitable for heating. 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 using a special material (EVOH), that either is: externally bonded (3 layers) or situated in the middle of the wall thickness (5 layers).



WITH PROTECTIVE SLEEVE

RETIFLEX pipes are available inside corrugated HDPE pipe that offers mechanical protection, easy replacement of the inner pipe in case of damage, reduction of the thermal losses and absorption of expansion capacity.



RETIFLEX-ISO

RETIFLEX pipes are also available with insulation ISOLIN of 9 or 15mm. The insulation is made of expanded closed-cell polyethylene, which is coated by a special moisture resistant film of white color, that offers UV protection. It is recommended for outdoor use, due to its high resistance to solar radiation and adverse weather conditions and also in every application that requires protection of heat loss or concentrates.



RETIFLEX pipes can be produced in any colour, according to customer's requirements.



GUARANTEE

Guaranteed for 10 years constant operation in cold and hot water systems under pressure. The guarantee covers product liability and possible damages to third installations up to 2.000.000€ per event and cumulatively on an annual basis.

INSTALLATION TIPS



STORAGE & HANDLING

Before using RETIFLEX pipes, they should be stored in their original packing under cover in order to prevent dust accumulation, long-term exposure to sunlight and avoid their damage. Do not use pipe which has cuts, deep scratches or gouges, kinks or crushed sections, evidence of grease, oil or noticeable color fading of pipe. All damaged sections should be cut and replaced.



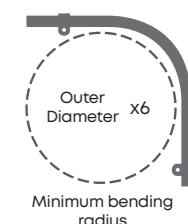
CUTTING

The cut of an RETIFLEX pipe must be done perpendicular to the axis of the pipe by a special pipe cutter.



BENDING

In order to achieve hot bending of RETIFLEX pipe, it can be either heated by a hot air gun with diffuser nozzle of controlled temperature, or by hot water circulating inside the pipe. **Attention: the use of the open flame is forbidden.** Care not to kink or damage the pipe. The maximum bend radius at 20°C should be 6 times the nominal outer diameter of the pipe.



CONNECTION

RETIFLEX pipes can be connected with screw, press, push and expansion fittings.



PRESSURE TESTING

After completing the installation, the circuits should be tested for fitting leakage. It is advisable to test with water with 1,5 times the working pressure for at least 24 hours.



THERMAL EXPANSION

The linear expansion rate of RETIFLEX pipes is approximately 1,4mm/10°C temperature change for each meter of pipe. When installing long runs of pipes, allow 10-15mm in longitudinal clearance per meter of run to accommodate thermal expansion. Pipes must not be anchored rigidly or pulled tight between fixed points (i.e. manifolds-valves etc).



HEATING RADIATOR SYSTEM

In heating radiator system installations, RETIFLEX pipes should be always installed within protective corrugated sleeve. Thus, we protect the inner RETIFLEX pipe from possible damage, improve its performance and provide its easy replacement in case of damage. **The "closed curves" should be avoided.** In heating installations between two fixed points (manifold-valve) a snake-shaped route must be followed, i.e. an open curved "S" before each fixed point.

* In underfloor heating installations, oxygen barrier pipes are recommended.

**Antifreeze substances must be used for applications below 0°C.