About Us

SOLIN *S.A. is a Greek production company that produces composite and plastic pipes as well as fittings of a wide range of applications. It's one of the oldest companies of its kind and the only one with such a large range of pipe production for heating and sanitation. Primary and integral presupposition of its existence, since its establishment until today, is the quality of its products.*

The well trained staff of the company consisting of 80 employees, works daily for covering the philosophy of the company that is "total customers satisfaction". The head office, the management and some warehouses are located in Athens, while the factory with the main warehouses are located in A' Industrial Area of Volos with buildings of 17.500m², in a total plot extent of about 33.000m².

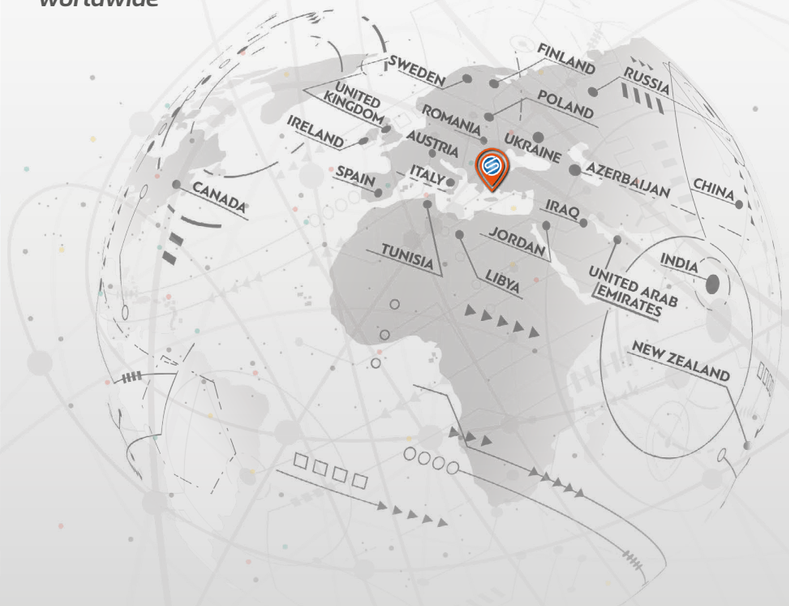
In a course of more than 35 years of the manufacturing process and having the experience and knowledge of experts in this field, our products are among the top quality of their kind in the international markets and provide practical, reliable and enduring solutions to multiple applications.

More than 35
Active years

60%
Of our production
in exports

ISO
ISO certificate
since 2000

Exports to 40 countries worldwide



Certifications from international institutes

ISO 9001 2015 CERTIFIED · ETL LISTED · WRAS APPROVED PRODUCT · SKZ · MPA NRW. Materialprüfungsamt Nordrhein-Westfalen PRÜFEN • ÜBERWACHEN • ZERTIFIZIEREN · TÜV

SOLIN S.A.
PRODUCTION OF PLASTIC PIPES

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SOLIN®

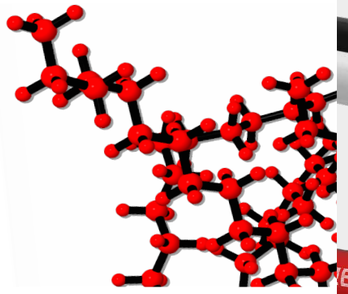
RETIFLEX®

PE-Xb
CROSS-LINKED POLYETHYLENE PIPES

SUITABLE FOR APPLICATIONS

HEATING · SANITATION · COOLING · UNDERFLOOR · SOLAR

TECHNICAL INFORMATIONS



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 ISO15875 **- 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	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

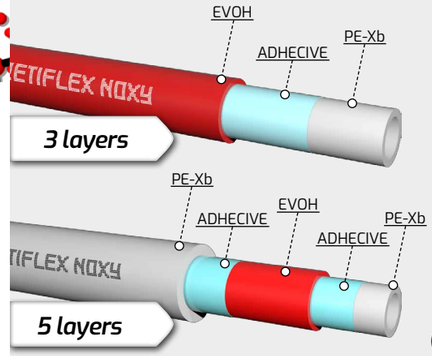
MECHANICAL PROPERTIES	Units	Value
Tensile strength	MPa	21
Elongation at break	%	550
Impact strength (20°C)	KJ/m²	No breakage
Tensile modulus of elasticity (20°C)	MPa	>550

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 us SKZ, WRAS, MPA, etc.

AVAILABLE TYPES

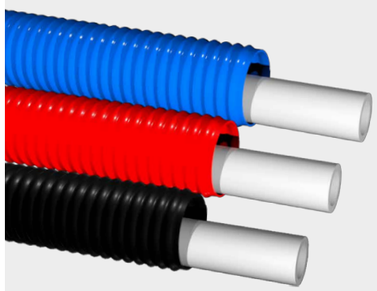
SINGLE RETIFLEX

High density cross linked polyethylene PE-Xb pipe



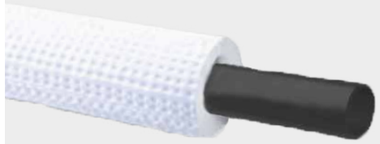
RETIFLEX-NOXY

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 can be 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 AND HANDLING

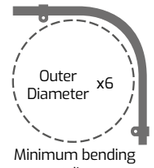
Before using RETIFLEX pipes, they should be stored in their original packing under cover in order to prevent dust accumulation, long-term exposure to sunlight and avoid their damage. Do not use pipe which has cuts, deep scratches or gouges, kinks or crushed sections, evidence of grease, oil or noticeable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



Minimum bending radius

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 14mm/10°C temperature change for each 10m 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.***