



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



60%
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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OCTATHERM[®]

PE-RT
POLYETHYLENE PIPES
OF RAISED TEMPERATURES
RESISTANCE

SUITABLE FOR APPLICATIONS



HEATING



SANITATION



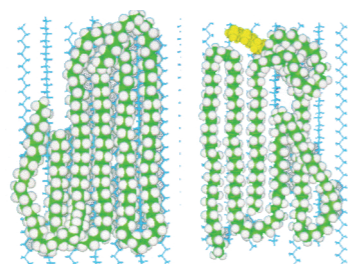
UNDERFLOOR
HEATING



COOLING

TECHNICAL INFORMATION

OCTATHERM pipes are made from polyethylene of raised temperature resistance (PE-RT) that have unique molecular structure and crystalline micro-structure, which provides excellent long term hydrostatic strength at high temperatures without the need of material's cross-linking. The lamellar crystal structures are connected through amorphous polymer segments: the **tie chains**. This could be described as a kind of geometrical cross-linking". **Tie chains** show extensibility and mobility and can absorb and dissipate energy. OCTATHERM pipes are produced according to the following international standards and specifications:



- DIN 16833/16834
- DIN 4721-4726 (for pipes with oxygen barrier)
- ISO 22391

The outstanding flexibility and superior smoothness of the inner and outer surface of OCTATHERM pipes allow the economical, safe and qualitative installation with no incrustations and low pressure loss. They are ideal for underfloor heating installations where very close bends are required.

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	15x2,5	29.0	26.7	22.1	13.0	10.1	8.3
	16x2	20.1	18.6	15.4	9.3	7.3	6.0
	17x2	19.3	17.8	14.7	8.7	6.8	5.6
	18x2	18.1	16.7	13.8	8.1	6.3	5.2
	18x2,5	22.7	20.9	17.3	10.5	8.2	6.7
	20x2	15.8	14.5	12.0	7.3	5.7	4.6
	22x3	22.7	20.9	17.3	10.3	8.0	6.6
	25x2,3	14.5	13.4	11.1	6.6	5.2	4.2
	25x3,5	22.7	20.9	17.3	10.6	8.3	6.8
	28x3	17.3	15.9	13.2	7.8	6.1	5.0
32x3	14.5	13.4	11.1	6.8	5.3	4.3	

PRESSURE IN BAR

MECHANICAL PROPERTIES

	Units	Value
Tensile strength	MPa	16.5
Elongation at break	%	>800
Flexural modulus	MPa	550
Hardness, Shore D		53

OCTATHERM pipes are certified by SKZ institute for their mechanical resistance and by MPA for their oxygen barrier.



AVAILABLE TYPES

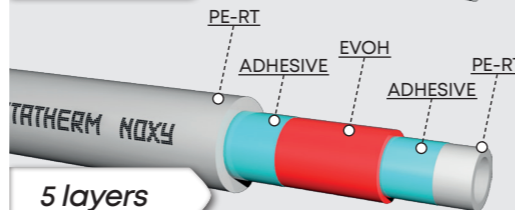
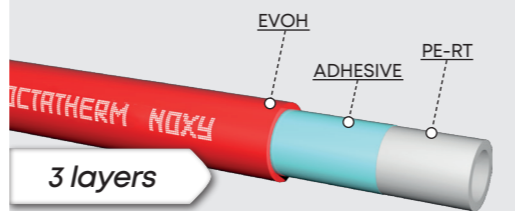
SINGLE OCTATHERM

Polyethylene PE-RT pipes.



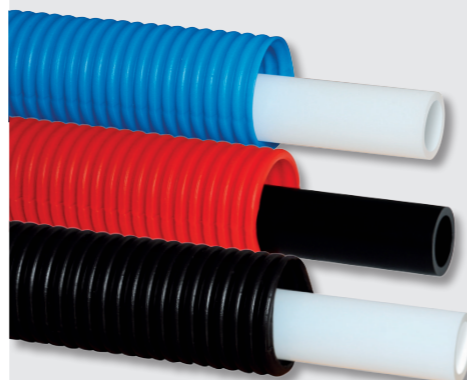
OCTATHERM-NOXY

Polyethylene PE-RT 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

OCTATHERM pipes are also 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.



OCTATHERM-ISO

OCTATHERM pipes are offered upon request 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.



OCTATHERM 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 OCTATHERM 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.



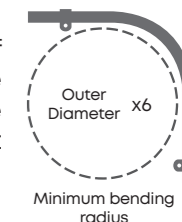
CUTTING

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



BENDING

In order to achieve hot bending of OCTATHERM 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, and push 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 OCTATHERM pipes is approximately 1,95mm/10°C temperature change for each meter of pipe. When installing long runs of pipes, allow 15-20mm 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, OCTATHERM pipes must always be installed within protective corrugated sleeve. By that way, we protect the inner OCTATHERM 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.