

REFERENCE PROJECTS

The continuous improvement, innovation and high quality of Interplast products have ranked it in first place in Greece in terms of plastic piping networks in plumbing, heating and air conditioning. At the same time, extroversion and export activity in 60 countries have resulted in the placement of the company's products at very important projects in Europe, America, Africa and the Middle East. A summary of some of the most important projects, in which the system of insulated pipes and fittings Aqua-Plus Prins of Interplast has been installed, is briefly presented.



Mayia Exclusive Resort & Spa 5*, Rhodes



Hyatt Regency 5*, Thessaloniki



Agia Napa Marina, Cyprus



Kuda Villingili Resort 5*, Maldives



Pristina Mall, Pristina



European Interbalkan Medical Center, Thessaloniki



Cyprus Cancer Research Institute



Hell Energy Drinks Industry, Hungary



Mykonos Airport (JMK), Greece



Deree College, Agia Paraskevi, Athens



Ktima Alpha, Amyntaio



MarBella Elix 5*, Karavostasi, Greece



CERTIFICATIONS

Interplast, established the strictest production control processes, in order to fulfill the new requirements concerning the wider upgrade of the buildings, energy saving and environmental protection. The company is certified according to the standards ISO 9001, ISO 14001, ISO 50001 and holds the crucially important Environmental Product Declaration (EPD) for the energy footprint of the Aqua-Plus system.

Aqua-Plus Prins pipes and fittings meet the standards set by international (ISO), European (EN), German (DIN), British (BS) and American (US). Interplast products are subject to periodic inspections by internationally certified institutes without the slightest production failure having been noted (or recorded).

The pre-insulated system Aqua-Plus Prins, along with service pipe certifications, has the following additional certifications and laboratory test reports:

- Hydraulic test at -10°C
- Thermal conductivity & energy losses
- Quality of polyurethane
- Linear expansion calculation
- Fire resistance
- Waterproofing of the joints process (jackets)
- Oxygen permeability

The wall thickness and insulation properties of the polyurethane meet the requirements of the American (ASHRAE), European (EN) and Greek (EERB) standards and regulations.

TUV-EN ISO 9001:2015, ISO 14001:2015, ISO 50001:2015, EPD Sweden



Test / Certification Bodies - Audits:

EBETAM-MIRTEC Greece, ICC America, SKZ Germany, WRAS Great Britain, EMI Hungary, ISS Serbia, Aristotle University of Thessaloniki, National Technical University of Athens, KIWA Netherlands, FFI Germany.

Certifications of Parts PN 30:

ICC America, SKZ Germany, EBETAM-MIRTEC Greece, WRAS Great Britain, EMI Hungary.

Warranty: 10-year warranty with insurance covered by Generali, for an amount up to €5.000.000.



REDUCTION OF ENERGY LOSS
UP TO **-70%**

Green Line
interplast
Aqua-Plus Prins

PP-R 125 and PP-RCT
Preinsulated system

Upgrade the constructions

interplast.gr/en
HOUSE OF INNOVATION





Aquaplus Prins

ICC ES CERTIFIED SYSTEM BY ICC U.S.A.

Atlantica Aegean Blue 5*, Rhodes



HOUSE OF INNOVATION

Interplast with a passion for innovation, produces a complete and certified system of pre-insulated polypropylene pipes and fittings. Aqua-Plus Prins system constitutes a high-end technology insulation for industrial hydraulic applications. Aqua-Plus Prins ensures a certified and uninterrupted energy savings, elimination of linear expansions marking the beginning of the end to costly insulation maintenance and energy-intensive network operations, while the system resists on extreme weather conditions, corrosive chemicals, oxidation and fire.

PRODUCT DESCRIPTION

The system consists of a service pipe which is produced from polypropylene, PP-R 125 or PP-RCT. This is followed by a uniform layer of closed cell polyurethane insulation. The polyurethane foam exceeds the quality characteristics defined by the standard EN 253. Finally follows the outer casing (pipe) of modified polyvinyl chloride (M-PVC) or high density polyethylene (HDPE).

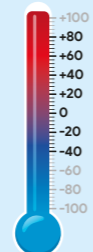
The casing M-PVC pipe meets the quality characteristics of EN 1329 with additional UV protection from sunlight.

PRODUCTION AND DELIVERY INFORMATION

The length of the pre-insulated pipes is 4m, available in diameters from Ø20mm to Ø125mm and in 5.8m, with range from Ø160mm to Ø450mm. It is possible to be produced in SDR 7,4 - 9 - 11 and 17, with or without fiberglass. Upon request, our company has the ability to produce pipes and fittings with casing pipe made by polyethylene HDPE in straight lengths of 4m, 5.8m and 11.6m.

SYSTEM OPERATION LIMITS

- Ambient temperature: -40°C to +80°C
- Inner fluid temperature for PP-R or PP-RCT pipes: -10°C to +100°C
- Thermal linear expansion coefficient for the PPR / PUR / M-PVC system: 0.016mm/mK



The system has been awarded with the Gold Medal of Innovation and the Silver Medal of Industrial Excellence by the Hellenic Academy of Marketing. These distinctions are a justification of our company's efforts, which, since its establishment, constantly invests in scientists and state-of-the-art equipment which leads to innovation. This award does not belong only to us. It also belongs to all those who choose our products and support the efforts of our company throughout its years of operation, giving us the stigma of innovation and high quality products with respect for the people and the environment.



ADVANTAGES

- Reduction of energy loss up to 70% compared to classic types of pipe insulation
- Zero maintenance
- Long service life
- Constant thermal resistance of the insulation over the years
- Guaranteed insulation quality
- Full coverage of the inner surfaces so that no gaps are left, condensation and air entrapment phenomena are avoided
- Resistance to extreme weather conditions (rain, snow, frost, etc.)
- Sparse and simple support due to the minimal expansion and the small bending of the insulated pipes
- Thermal linear expansion smaller than copper
- Increased mechanical strength
- Zero condensation
- Quick installation compared to conventional insulation application
- High resistance to external stress
- Waterproof material
- UV protection
- Fire resistance (B-s2, d0)
- Oxygen tight
- Insulation wall thickness compliant with ASHRAE standards
- Extremely fast payback of the investment
- Low weight
- High resistance to corrosion



APPLICATION AREA

The Aqua-Plus Prins insulated system is suitable for:

- Underground networks
- Outdoor networks
- Indoor networks
- New constructions
- Reconstructions



Below, some of the system applications:

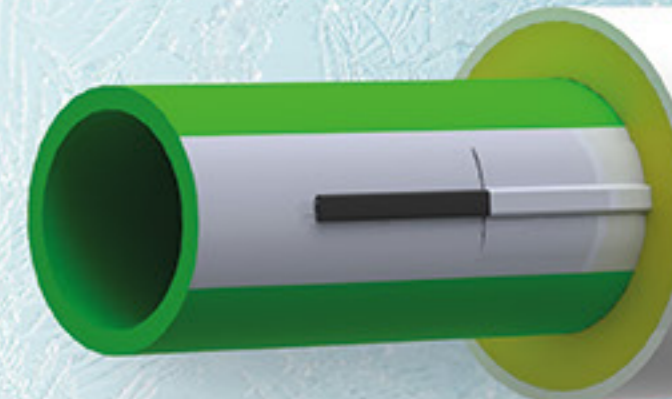
- Air conditioning networks and cooling towers
- Heating networks
- Transport of hot water & drinking water installations
- District heating and cooling
- Underground hot and cold water networks
- Industrial refrigeration networks
- Networks in food industries etc.
- Networks in the shipbuilding industry
- Geothermal systems
- Chemical liquid networks
- Spas and swimming pools

ANTI-FROST PROTECTION SYSTEM

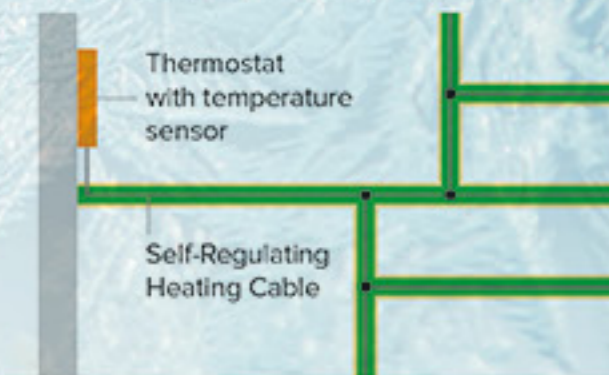
During the winter, extreme weather conditions may cause ice formation, even on pre-insulated pipes. Ice formation will result in the blockage of the pipe and in the worst scenario its failure, with the appearance of a leak. Repairing requires time and cost for the installer. The antifreeze protection system is an affordable and reliable solution which ensures both the integrity of the insulated pipes from low temperatures and the uninterrupted operation of the network of pipes and fittings for many years.

Antifreeze protection system offers:

- Elimination of the ice formation phenomenon
- Avoidance of Unpredictable repair costs
- Ensurement of continuous network flow even in extreme weather conditions



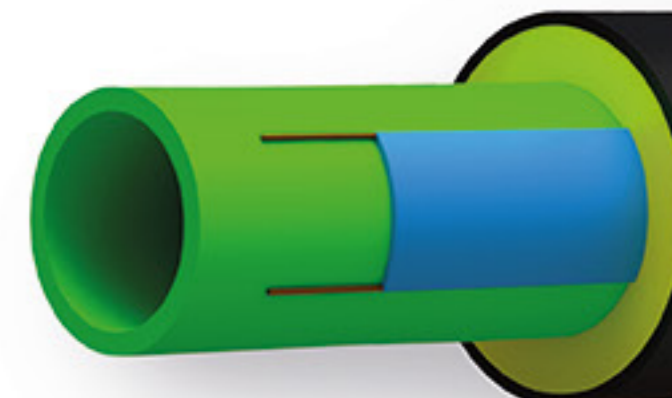
ANTI-FROST PROTECTION SYSTEM



LEAK DETECTION SYSTEM

The pre-fabricated insulation of pipes offers multiple benefits to the hot and cold medium transportation networks. However, in insulated pipes, the occurrence of leakage in the main pipe is difficult to detect with emphasis on invisible underground networks. Even a small leak will cause deterioration of the insulating properties, high energy cost, damage and oxidation.

The solution to this problem is the installation of a leak detection system to pipe network. The leak detection system is a complete and reliable system for monitoring and control of piping networks, which finds its optimal application in insulated pipes where there is no direct visual contact with the main pipe. This system detects the presence of a leak and its exact location, with high accuracy.



The leak detection system achieves:

- Safe and smooth operation of the network
- Leakage detection and determination of its extent
- Detection of the location of the leakage
- Monitoring and control of the network, at any time, for the whole year
- Reduction of repair costs
- Remote access with a simple internet connection
- Remote control of the detection system
- Creation of data history
- Creating reports and analyzing results

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