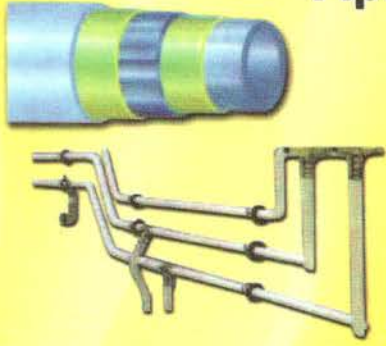


Uponor

**Multy
Layers
Pipes**



UNIPIPE

WAVIN

Heat Pies



BOR^{plus} SYSTEM

NEW SILENT PIPE SYSTEM



**hp
hakan
PLASTIK**

**STAINLESS STEEL
STRAINER**

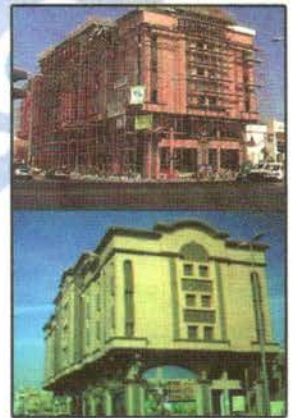
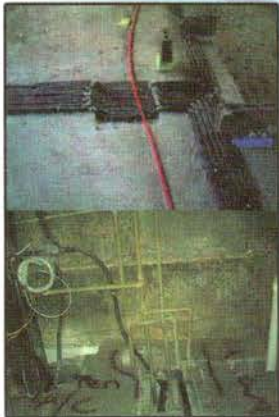


**PP
TERRA**



GULF FAYNAQ EST.

For Modern Piping Systems & Modern German Plumbing



Al-Khobar - Aqrabiya - Al-Abrar St. Cross 16 - Tel.: 013 8995983 - Fax : 013 8891247

www.faynaq.com



BOR^{plus} SYSTEM

Uponor

UNIPIPE
PP TERRA

hakan
PLASTIK

WAVIN

About Faynaq AlKhaleej :

Faynaq AlKhaleej established in 2005 , as leading company in advanced and modern german plumbing in saudi arabia market paricularly in eastern region

Most of famous and great companies and consultant engineering offices dealing with Faynaq AlKhaleej from the begining.

Faynaq Alkhaleej carry out many projects in eastern region and we are the main supplies for modern plumbing products for many projects and we do the inspection .

Faynaq AlKhaleej Targets :

Early in the begining Faynaq AlKhaleej acheive the main target by keeping in touch with the latest plumbing technology and to provid its high quality products with resonable and competition cost .

Faynaq AlKhaleej working only plumbing under supervisor of expest engineers and technicans .

Specifications / Pipe	CPVC Pipes	Polypropylene BOR^{plus} SYSTEM	Polypropylene Uponor (Unipipe)
Chimicals Resistance	Med.	High	High
Oxygen Permeation	High	Medium	Free
Max . Working Pressure & Temp.	6 Bar at 60°C Med. Safety	10 Bar at 60°C Med. Safety	10 Bar at 95°C High Safety
Roughness	0.003 mm	mm 0.007	mm 0.0004
Thermal Expansion (mm/50m/50k)	200 mm	mm 450	mm 62.5
Resistance of hydraulic damping	Low	Medium	High
Crtificate for drinking water	-----	DVGW German Certificate (Drinking Water)	DVGW German Certificate (Drinking Water)
Leakage / Joints	Joints will be the weakest point of a system (Adhesive)	Fitting becomes welded to the pipe forminf a single material	Press Fitting (100% Tight) Techniques

DISCRIPTION

Hakan Plastik's special patented product Silenta Waste Water pipes and fitting is the first and only Polypropylene soundproof pipe systems in Turkey. Silenta, has a full 13 dB sound transmission in 4 it and continues to be the quietest pipe produced in Turkey. For the future, by creating ideal conditions for use, provides an excellent sound isolation. Silenta, enhances quality of life with the property value. Enjoy the silence with Silenta, which is used in the world's tallest building Burj Khalifa-Dubai Mall, the Rolex Tower, Versace Tower, Trump Tower, Sapphire...

Why Silenta?

- SILENTA, enhances quality of life with the property value
- Superior sound insulation in DIN 4109 norm.
- Multi-layer manufacturing technology
- High resistance to corrosion and excellent resistance to chemicals
- Ease of transportation and maintenance with telescopic stowage method
- Ease of combination and installation
- %100 impermeability due to unique seal design
- Long life
- Smooth flow surface
- Flexibility
- Opportunity of production in any desired length.
- High temperature resistance (short-term 110 °C)
- Does not leave toxic gas during fire
- High resistance to corrosion
- Superior impact resistance even at 0 °C

Advantages

- Silenta prevents the hearing of the noise formed by the impact of the waste in the internal surface of the pipe with high molecular weighted special formula and 3-layer structure.
- Special structure of Silenta reduces the vibrations on the installation system substantially. Thus, the contact noise and roaring occurred as a result of the vibration inside the building is prevented.
- Also contributes to an increase in the value of the property.

Application Areas

- In every construction
- Residential, industrial building, hospitals, offices, residences...

Form: 3-layer sound-proof material made of mineral added polypropylene

Diameters: Ø 32, Ø 200

Length:

Color: Grey

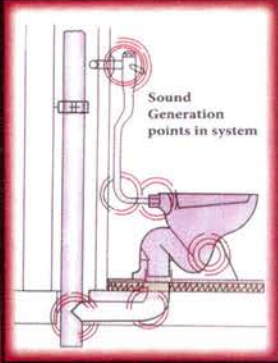
Chemical Resistance: PH 2-12

Temperature resistance: 95 °C (DIN 1986, DIN 1 2056)

Flame Resistance: DIN 4102

TECHNICAL COMPARISON BETWEEN SILENTA Silent Drain (PP-R) & UPVC LAGGING

	SILENTA (SILENT DRAINAGE)	PVCW WITH ACOUSTIC LAGGING
Melting Temperature	160 - 170°C	70 - 100°C
Noise Level	16 db @ 4 L / S	28 db @ 4 L / S
Base material	Polypropylene with mineral reinforced	Polyvinyl Chloride
Overall Diameter	Retains same (c. g.) 4" - 110 mm	Differs after lagging (c. g.) 4" - 200 mm
Maintenance	Maintenance free Any leakage spot can be identified (pipes are exposed and not covered by any other material)	Costly Maintenance Any leakage spot can't be identified because Pipes are covered by Acoustic Lagging materials
Installation	Easy to install (Push fit) Fittings can absorb expansion and connection of the pipes	Job delays due to wrapping & Strapping on the UPVC pipes Gluing type fittings can't allow any expansion or contraction of the pipes
Chemical resistance	Resistance to wide range of chemicals	Normal
Temperature range	(-10) - 95°C	4 - 60°C
Application Area	Applicable for the whole drainage system including laundry piping	Not applicable for laundry lines
Toxic gases emission	No toxic gases emitted in case of burning the Silenta material	Toxic gases emitted in case of burning the PVC material



+GF+

hakan PLASTIK

Specifications	Silent A3	Silent Premium
Expansion coefficient Thermal	0.06 mm/mk	0.04 mm/mk
Noise Level	16 db All 4L/S	13 db All 4L/S
Temperature range	(-10) - 96°C	(-20) - 110°C

SILENTA
LOW NOISE
PIPE

www.faynaq.com

DESCRIPTION

PP TERRA is the fourth generation of products for sewage pipes made of polypropylene which gives the best characteristics of pipelines and superior chemical resistance. Which consists of elemental Carbon & Hydrogen. It uses PP TERRA discharge domestic sewage in School, laboratories and industrial buildings at high temperatures and low above and below ground and rain water drainage and ventilation system for the waste, which makes it the ideal product. PP TERRA and environment friendly.



ADVANTAGES

- Resistance to breakage due to the flexibility of the molecular structure of raw materials.
- Upto 90 C continuous operating temperature which makes the PP Terra the ideal product for the hot waste applications
- Superior chemical resistance which makes the PP Terra the ideal product for the chemical waste and industrial applications.
- Push fit joints simple and easy installation grants the safety of the connections and makes the maintenance of the system peace of mind.
- The possibility of re dislodged easily installation and modification
- Ease of installation of non adhesive or special tools. - Extreme hardness
- Available in sizes from 32 - 200 mm.
- Resistant to corrosion. - Lightweight.



Technical Comparison Between PVC & PP TERRA For Drainage

	PVC	PP-Terra
Material	Polyvinyl Chloride	Polypropylene
Sizes range	Full range including 160mm	Full range including 160mm
Toxic gases emission	Toxic gases emitted in case of burning the PVC	No toxic gases emitted in case of burning the PP material.
Temperature range	4 to 60 °C	(-10) to 90 °C
Jointing method	Gluing type fittings can't allow any expansion or contraction of the pipes	Easy to install (Push fit) Fittings can absorb expansion and contraction of the pipes.
Chemical resistance	limited	Resistance to wide range of chemicals PH 2-12
Impact Strength	Brittle	15 times more than the PVC
Maintenance	Costly Maintenance	Maintenance free Any leakage spot can be identified



BOR^{plus} SYSTEM



Description

BOR plus system is manufactured in Sochaczew using guaranteed quality raw material - type 3 polypropylene in grey colour. Due to the carefully chosen properties of this material BOR plus system can be used for constructing tap water, radiator heating and air condition installations inside buildings as well as industrial pipelines of compressed air and chemicals for action of which pipes and fittings should be very resistant (PP type 3 is resistant for impact of over 300 different kinds of substances).

The BORPlus system is also especially recommended for use in the renovation of old installations, in all types of building, including historic buildings. The main advantage of the BOR Plus system is the fact that joints are made using polymer fusion at a temperature of 260-280°C (the fitting then becomes welded to the pipe forming a single material). This means that a well-made joint is theoretically stronger than the pipe itself, whereas the joints are normally thought to be the weakest point of a system.



Assembly guaranteed to provide totally leakproof joints



Possibility of connecting to any type of installation

Advantages of the BOR Plus system

- ⊙ High durability - minimum 50 years' use
- ⊙ Low coefficient of absolute roughness (0.007mm)
- ⊙ Low level of hydraulic loss, no possibility of crusting
- ⊙ Low noise level
- ⊙ Total resistance to corrosion
- ⊙ Hygienic - PP-3 is non-toxic and does not react with water
- ⊙ Light weight
- ⊙ Low thermal conductivity coefficient - 0,2 W/mK
- ⊙ Oscillation damping qualities - resistance to hydraulic surges
- ⊙ Low cost of equipment required for making joints
- ⊙ Resistant to over 300 chemical compounds

- ⊙ Assembly guaranteed to provide totally leakproof joints and ability to connect to any type of installation

Certificates and guarantees

- ⊙ COBRTI INSTAL technical certificate
- ⊙ DVGW certificate
- ⊙ PZH hygiene certificate
- ⊙ ISO 9002 - Uponor Polska
- ⊙ ISO 14001 and ISO 9001 - Uponor Group
- ⊙ System insured up to a sum of 1 000 000 EUR
- ⊙ Guaranteed for 10 years

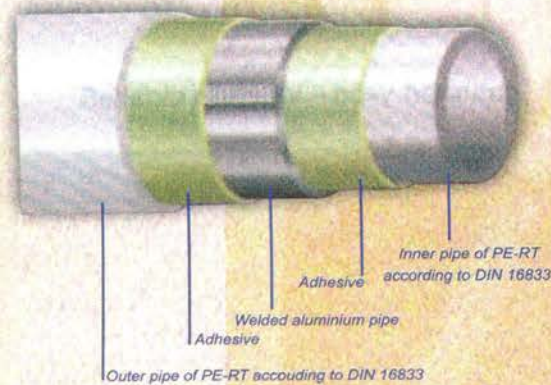


DESCRIPTION

Many international companies for pipe manufacturing tried to develop a system which has the advantages of metal pipe system and plastic pipe system together and the only company succeed in producing such system is the **German company "UNICOR"** UNICOR developed its own integral system that is UNPIPE system UNIPIPE is a multi layers system which has the advantages of both, metal and plastic pipes and over come the old generations disadvantages UNIPIPE is the third generation system

The **installation** of the system is so **simple and easy**; it is only done by **compression** The main advantage of the UNIPIPE system is the fact that joints are made of brass which are **thermally treated and coated by nickel**

The UNIPIPE system is a high quality system and has all various sizes & **measurements** and it has a **reasonable prices**



Multi layers of Aluminum and Plastic



Easy sahpe Control (Easy Twisted)

- No corrosion
- No incrustation
- No leakage (a well made joints are the strongest points of the system)
- Simple and easy installation (No heating, no welding, no adhesive and no melting)
- High rapture strength (95C at 10 Bar - 60c at 15 Bar)
- Law thermal expansion (62mm/ 50C/50M)
- No Oxygen permeation
- Resist Ultra violent rays
- Silent flow
- All various sizes and measurements (3/8" to 4")
- The joints system is complete and well made of brass which is thermally treated and coated by nickel
- All methods of installation adopted (T - coupling, distributors)
- For external and internal systems
- Light weight

UNIPIPE HAS THE FOLLOWING APPROVALS AND DERTIFICATES

- ❖ **GREAT BRITAIN**
 - (WRC) CERTIFICATE APPROVAL NO. (960930)
 - (BG) NO. (BG/TC/96/35)
- ❖ **FRANCE**
 - (CSTB) NO. (36-359)
- ❖ **USA**
 - (ICBO) NO. (ER-5298)
 - (ABS) NO. (98-MU34399-X-A)
- ❖ **GERMANY**
 - (DVGW) NO. (TS 127) (U327)
 - (SKZ) NO. (A243) (A241)
- ❖ **SWITZERLAND**
 - (SVGW) NO. (9309-3068)
- ❖ **AUSTRALIA**
 - (OVGW) NO. (W1.235)
- THE NETHER LANDS**
 - (K1WA) NO. (K11596)

- ❖ The annual insurance are RS 40 million given by a German Insurance company
- ❖ Guaranteed for 10 years

