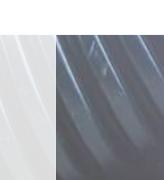
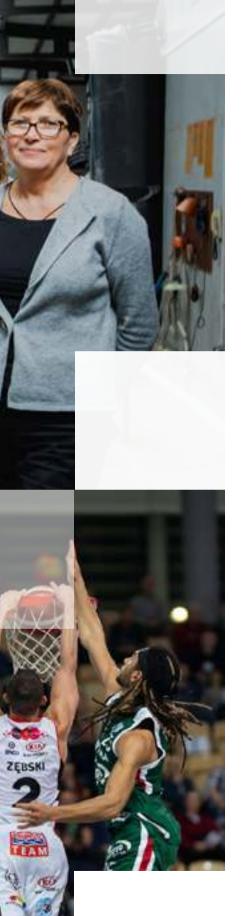


Poducer of pre-insulated pipelines

Catalog of products







The bridge between tradition and innovation.

Challenges are our specialty - as SYNCO, we create creative space, which combines the potential of scientists, specialists and innovation. One of them is SYNCOPEX®, i.e. an ecological system of pre-insulated pipelines, manufactured according to own patents. Our pipelines have a wide spectrum of applications, a wide range of products comprehensively meets the needs of our customers, and still we are looking for new solutions.

Strength of the values that connects generations

SYNCO is a Polish family company. Knowledge of the local market and understanding of you needs and expectations are our strength. We have been operating for over 30 years, delivering not only high-quality products or innovative solutions, but we also promote valuable and long-lasting relationships that support the development of our clients as well our employees.

We have three decades of experience behind us - we understand our industry, market and Your needs and we focus on continuous development of our products and team. Fascinated by creating innovative solutions in 1992 as the first century We have introduced PEX pre-insulated pipelines to the Polish market. From that one our pipes have found application in thousands of facilities in Poland and abroad, providing longterm reliable transmission service.

We are not afraid of challenges - trust us because we know what we do!

Man does not only live by work

A lot connects us with sport, both privately and business. Invariably we support the local club Enea Astoria Bydgoszcz. Our logo is visible on T-shirts the whole team. As a strategic partner, we support the club's activities, but above all we all regularly support



and promote. Because the most important thing you can give the players are support and cheering at sports meetings.

The history of the Astoria basketball club dates back to 1929. For many years, the club has trained many wonderful athletes, helps in the development of young people and the realization of their sporting dreams. Team achieves many successes and has been participating in competitions for several years Polish e-basketball class.

We are proud to support such a great basketball team!

4

SYNCOPEX[®] pre-insulated pipelines[®]

SYNCOPEX pre-insulated pipelines are PEX cross-linked polyethylene pipes with insulation and outer jacket, designed for central heating, hot and cold water. PEX pre-insulated pipes provide a comprehensive solution with high strength, flexibility and service life. The innovative design allows for excellent thermal insulation of pipelines and reduces heat loss by up to 50%. SyncoPex pre-insulated pipes are intended for use in both large buildings and domestic central heating installations.

Construction of the single pipeline

Corrugated outer jacket made of HDPE polyethylene

Internal work pipe made of PEX cross-linked polyethylene

Insulation layer of foamed cross-linked PEX polyethylene with closed cells



Construction of the Multi-Tube Pipeline

Corrugated outer jacket made of HDPE polyethylene

Empty air space

Internal work pipe made of PEX cross-linked polyethylene

Insulation layer of foamed cross-linked PEX polyethylene with closed cells



Application of SYNCOPEX® pipes

Due to the variety of liquid media that can be sent via pipelines, and the specificity and requirements, we distinguish different types of pre-insulated pipes and pipes for internal installations. Each solution is a technology designed specifically for a given application. In our offer you will find pipes for:

CH and DHW networks usable

203°F - 6 bar 158°F - 10 bar



Water supply network

10 bar - 16 bar



Low parameter heating networks

203°F – 6 bar



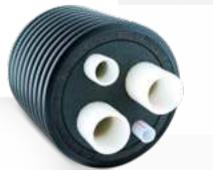
DHW networks usable

158°F - 10 bar



CH and DHW networks

203°F - 6 bar 158°F - 10 bar



Technological networks

In the food and chemical industries



Why choose SYNCOPEX®?



6

COMPLEXITY AND EFFECTIVENESS

SYNCOPEX pipelines, unlike traditional steel pipes, are a comprehensive solution for hot and cold water transmission networks. They ensure a high thermal insulation and operational coefficient, which is the thermal efficiency of pipelines.



SAVINGS

The thermal insulation of SYNCOPEX pipes, made of closed-cell PEX polyethylene, llows to achieve much better thermal insulation conditions for pipelines and reduce heat loss by up to 50%, and thus save money.

(V) P U EASY INSTALLATION

SYNCOPEX pipes are laid in shallow excavations with the possibility of immediate backfilling of laid sections without the need for leakage tests. Great flexibility of pipelines allows to avoid obstacles in the ground without the use of knees and arches and its free development. SYNCOPEX® is a self-compensating system for linear elongation, so there is no need to use it fixed points and compensators.

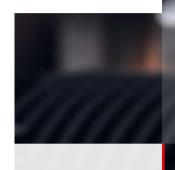


DURABILITY

SYNCOPEX solutions provide long-term and reliable transmission service. The full technical efficiency of the SYNCOPEX system is determined for a minimum of 50 years.

GUARANTEE OF QUALITY

By combining the potential of scientists, specialists and entrepreneurs, Synco has created innovative pipeline solutions, for which it obtained patents No. P-189276 and P-191992 regarding the production of flexible pre-insulated pipelines with a PEX line pipe. The SYNCOPEX® pre-insulated flexible pipe system is manufactured in accordance with PN-EN 15632-1-3, has the Technical Approval of the Building Research Institute in Warsaw and the National Certificate.







SNCO_ogistics

The organization of road, sea and air transport of goods on domestic and international routes is our domain. With us, your cargo will arrive wherever you want. Efficient, safe and effective. We give you not only a well-equipped and diverse fleet, but also a team of professionals who make sure that each stage of the order we perform is of the highest quality.

Bulk loads

To perform this service, we use a specialized fleet of dump trucks and silos, which has the ability to transport loose loads in bulk and packed in bags.

Bagged and palletized loads

Transport of neutral full truck load (FTL) or partial load (LTL) using trucks, semitrailers with semi-trailers or sets.

Liquid loads

They require the use of a specialized fleet in the form of tanks and Flexi Tanks.

Cooling loads

Refrigerated transport, i.e. the transport of goods that require special thermal conditions. A transport company that transports this type of cargo to our customers meets all hygiene, thermal, strength and operational requirements.

Dangerous goods

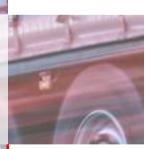
Transport of ADR loads is associated with many requirements that must be met by both carriers and goods packing units. Our drivers have all the permits, a specialized fleet and trained employees, thanks to which they professionally perform every ADR transport.

Oversized and heavy loads

Whether domestic or foreign transport - each country has established standards for the dimensions of heavy goods vehicles passing through their area, which all transport companies must comply with. Freight transports that exceed these standards require special permits and the use of specialized vehicles.

General cargo and express delivery

Do you have a small load that you want to quickly deliver or pick up from anywhere in the country, Europe or the world? We offer express services, both general cargo and larger.





Single Syncopex® pipeline central heating PN6 / 203°F, domestic hot water PN10 / 158°F

Pipeline for central heating in max. working temperature 203°F 6 bar; hot or cold water in max. temp. 158°F 10 bar. PEX-a SDR 11 conduit pipe, cross-linked polyethylene with Evoh barrier protecting against oxygen penetration into the installation. Thermal insulation made of closed-cell foamed PEX, resistant to aging.

The pipeline is manufactured in accordance with PN EN 15632-1-3 norm.

| Outer casing [in] | 3,5 | 3,5 | 4,3 | 4,9 | 5,5 | 6,3 |
|---------------------------|-----------|-----------|-----------|-----------|-----------|-----------|
| Outer pipe PEX [in] DZ | 1 | 1 1/4 | 1 1/2 | 2 | 2 1/2 | 3 |
| Inner diameter [in] DN | 3/4 | 1 | 1 | 1 1/2 | 2 | 2,4 |
| Bending radius [ft] | 0,8 | 0,8 | 1,2 | 1,5 | 1,8 | 2 |
| Maximum length. [ft] coil | 300 | 300 | 300 | 300 | 300 | 300 |
| Catalog No. | 100090025 | 10090032 | 100110040 | 100125050 | 100140063 | 100160075 |
| Outer casing [in] | 7,9 | 6,3 | 7 | ,9 | 7,9 | 7,9 |
| Outer pipe PEX [in] DZ | 3 | 3,5 | 3 | ,5 | 4,3 | 4,9 |
| Inner diameter [in] DN | 2,4 | 2 3/4 | 23 | 3/4 | 3,5 | 4 |
| Bending radius [ft] | 2,3 | 2,3 | 2 | ,6 | 2,6 | 3,3 |
| Maximum length. [ft] coil | 300 | 300 | 30 | 00 | 300 | 300 |
| Catalog No. | 100200075 | 100160090 | 0 10020 | 00090 | .00200110 | 100200125 |



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Syncopex[®] double central heating pipeline PN6 / 203°F

Pipeline designed for central heating in maximum working temperature of 203°F 6 bar; Transmission pipe PEX-a SDR 11 made of polyethylene cross-linked with Evoh barrier to prevent oxygen from penetrating into the installation. Thermal insulation made of closed-cell foamed PEX, resistant to aging.

The pipeline is manufactured in accordance with PN EN 15632-1-3 norm.



Pipeline construction is based on the Patent 189276 and includes an air space between pipe insulation and enclosure insulation to form an additional thermal barrier. It is sealed with a thermal plug. Such design also provides an exceptional flexibility of the pipeline.

Thermal plug for self-assembly in a set with pipeline in amount suitable for sections.

| Outer casing [in] | 5,5 | 5,5 | 6,3 | 7,9 | 9,8 | 9,8 |
|---------------------------|-----------|-----------|-----------|-----------|-----------|-----------|
| Outer pipe PEX [in] DZ | 2 x 1 | 2 x 1 1/4 | 2 x 1 1/2 | 2 x 2 | 2 x 2 1/2 | 2 x 3 |
| Inner diameter [in] DN | 2 x 3/4 | 2 x 1 | 2 x 1 1/4 | 2 x 1 1/2 | 2 x 2 | 2 x 2,5 |
| Bending radius [ft] | 1,6 | 1,6 | 2 | 2,3 | 3 | 3,9 |
| Maximum length. [ft] coil | 300 | 300 | 300 | 300 | 300 | 300 |
| Catalog No. | 200140225 | 200140232 | 200160240 | 200200250 | 200250263 | 200250275 |



Other sets of diameters, and series of types: 3 transmission tubes, five and seven, tubes PE with heating cable are made to order.



Double Syncopex® pipeline DHW PN10 / 158°F

Pipeline designed for hot water and circulation in max. working temp. of 158°F 10 bar; Transmission pipe PEX SDR 11. Thermal insulation made of closed-cell foamed PEX, resistant to aging.

Pipeline is manufactured in accordance with PN EN 15632-1-3

* norm, in case of projected temp. of 203°F 10 bar we use PEX SDR 7,4



Pipeline construction is based on the Patent 189276 and includes an air space between the pipe insulation and the enclosure insulation to form an additional thermal barrier and is sealed with a thermal plug. Such design also provides exceptional flexibility of the pipeline.

The thermal plug for self-assembly in a set with pipeline in amount suitable for sections.

| Outer casing [in] | 5,5 | 5,5 | 5,5 | 5,5 | 6,3 | 7,9 |
|---------------------------|------------------------|--------------------|------------------------|------------------------|----------------------|------------------------|
| Outer pipe PEX [in] DZ | 1 x 3/4 1 x 1/2 | 1 x 1 1 x 3/4 | 1 x 1.1/4 1 x 3/4 | 1 x 1 1/2 1 x 1 | 1 x 2 1 x 1 | 1 x 2 1/2 1 x 1 1/4 |
| Inner diameter [in] DN | 1 × 1/2 1 × 0,4 | 1 x 3/4 1 x 1/2 | 1 x 1 1 x 1/2 | 1 x 1 1/4 1 x 3/4 | 1 x 1 1/4 1 x 3/4 | 1 x 2 1/2 1 x 1 |
| Bending radius [ft] | 1,6 | 1,6 | 1,6 | 2 | 2,6 | 2,6 |
| Maximum length. [ft] coil | 300 | 300 | 300 | 300 | 300 | 300 |
| Catalog No. | 201402016 | 201402520 | 201403220 | 201404025 | 201605025 | 202006332 |
| Outer casing [in] | 7,9 | | 9,8 | 9,8 | | 9,8 |
| Outer pipe PEX [in] DZ | 1 x 2 1/2 1 x 1 1/2 | | 1 x 3 1 x 1 1/2 | 1 x 3 1 x 2 | | 1 x 3,5 1 x 2 |
| Inner diameter [in] DN | 1 × 2 1 × 1 1/4 | | 1 x 2 1/2 1 x 1 1/4 | 1 x 2 1/2 1 x 1 1/2 | | 1 x 2 3/4 1 x 1 1/2 |
| Bending radius [ft] | 2,6 | | 3 | 3,9 | | 4,3 |
| Maximum length. [ft] coil | 300 | | 300 | 300 | | 300 |
| Catalog No. | 202006340 |) | 202507540 | 202507550 |) 2 | 02509050 |



Other sets of diameters, and series of types: 3 transmission tubes, five and seven, tubes PE with heating cable are made to order.



Syncopex® quadruple pipeline PEX heating PN6 / 203°F, domestic hot water PN10 / 158°F

Pipeline designed for central heating and domestic hot water and circulation in max. working temperature of 203°F 6 bar; 158°F 10 bar. Transmission tube made of polyethylene PEX-a SDR 11 cross-linked with barrier Evoh to prevent oxygen penetration to the installation. Thermal insulation made of closed-cell foamed PEX, resistant to aging.

Pipeline is manufactured in accordance with PN EN 15632-1-3 norm and, due to its innovative design it has a AT-15-8842/2012 Technical Institute Approval of Construction Technology.



* In a projected temp. of 203°F 10 bar for hot water we use PEX SDR 7,4

Pipeline construction is based on the Patent 189276 and includes an air space between the pipe insulation and the enclosure insulation to form an additional thermal barrier and is sealed with a thermal plug. Such a design also provides exceptional flexibility of the pipeline.

Thermal for selfassembly in a set with pipeline in amount suitable for sections.

| Outer casing [in] | 6,3 | 6,3 | 7,9 | 7,9 | 9,8 | 9,8 | 9,8 | 9,8 |
|---------------------------|-------------------------------|-------------------------------|-----------------------------------|-------------------------------|-----------------------------------|---------------------------------|---------------------------------|-----------------------------------|
| Outer pipe PEX [in] DZ | 2 x 1 1 x 3/4 1 x 1/2 | 2 x 1.1/4 1 x 1 1 x 1/2 | 2 x 1 1/2 1 x 1 1/4 1 x 3/4 | 2 x 2 1 x 1.1/4 1 x 3/4 | 2 x 2 1 x 1 1/2 1 x 1 | 2 x 2 1 x 2 1 x 1.1/4 | 2 x 2 1/4 1 x 1 1/2 1 x 1 | 2 x 3 1 x 1 1/2 1 x 1 |
| Inner diameter [in] DN | 2 x 3/4 1 x 1/2 1 x 0,4 | 2 x 1 1 x 3/4 1 x 1/2 | 2 x 1 1/4 1 x 1 1 x 1/2 | 2 x 1 1/2 1 x 1 1 x 1/2 | 2 x 1 1/2 1 x 1.1/4 1 x 3/4 | 2 x 1 1/2 1 x 1 1/2 1 x 1 | 2 x 2 1 x 1 1/4 1 x 3/4 | 1 x 2 1/2 1 x 1 1/4 1 x 3/4 |
| Bending radius [ft] | 2 | 2 | 2,6 | 3 | 3,9 | 3,9 | 3,9 | 3,9 |
| Maximum length. [ft] coil | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 |

Catalog No.

400160225 400160232 400200240 400200250 400250251 400250250 400250263 400250275



Pipe Black Corrugated HDPE 450N, PESZEL

| Mark Ø Dz x d [in] | Standard length [ft] | Trade Unit [ft] | Catalog number |
|-----------------------|----------------------|--------------------|----------------|
| 2.1/2" | scroll 150 | 1 ft | P450063050 |
| 3" | scroll 150 | 1 ft | P450A75050 |
| 3,5" | scroll 150 | 1 ft | P450A90050 |
| 4,3" | scroll 150 | 1 ft | P450A11050 |
| 4,9" | scroll 150 | 1 ft | P450012550 |
| 6,3" | scroll 150 | 1 ft | P450016050 |
| | | | |



Single Syncopex[®] pipeline PE SDR 11 Cold water

Pipeline designed for water supply and industrial networks. Blue or black conductor tube PE-100 SDR 11 PN 16 PN-EN 12201-2-2011. Thermal insulation made of closed cell foamed PEX, resistant to ageing.

Pipeline with pre-insulation manufactured in accordance with PN EN 15632-1-3 norm

| Outer casing [in] | 3,5 | 3,5 | 4,3 | 4,9 | 4,9 | 5,5 | 6,3 | 6,3 |
|---------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Outer pipe PEX [in] DZ | 1 | 1 1/4 | 1 1/2 | 2 | 2 1/2 | 2 1/2 | 3 | 3,5 |
| Bending radius [ft] | 0,8 | 0,8 | 1,2 | 1,5 | 1,6 | 1,8 | 2,3 | 2,3 |
| Maximum length. [ft] coil | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 |
| Catalog No. | 111090025 | 111090032 | 111110040 | 111125050 | 111125060 | 111160063 | 111160075 | 111200090 |
| Outer casing [in] | 7,9 | 7,9 | 7,9 | ç | 9,8 | 13,7 | 15,7 | 15,7 |
| Outer pipe PEX [in] DZ | 4,3 | 4,9 | 5,5 | e | 5,3 | 9,8 | 9,8 | 12,4 |
| Bending radius [ft] | 2,6 | - | - | | - | - | - | - |
| Maximum length. [ft] coil | 150 | 40 | 40 | 2 | 10 | 20 | 20 | 20 |
| Catalog No. | 111200110 | 11120012 | 25 111224 | 140 1112 | 24160 11 | 1350250 1 | 11400250 | 111400315 |



Single Syncopex[®] pipeline PE SDR 17 Cold water

Pipeline designed for water supply and industrial networks. Blue or black conductor tube PE-100 SDR 17 PN 10 PN-EN 12201-2-2011. Thermal insulation made of closed cell foamed PEX, resistant to ageing.

Pipeline with pre-insulation manufactured in accordance with PN EN 15632-1-3 norm.

| Outer casing [in] | 3,5 | 4,3 | 4,9 | 4,9 | 5,5 | 6,3 | 6,3 | 7,9 |
|---------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Outer pipe PEX [in] DZ | 1 1/4 | 1 1/2 | 2 | 2 1/2 | 2 1/2 | 3 | 3,5 | 4,3 |
| Bending radius [ft] | 0,8 | 1,2 | 1,5 | 1,6 | 1,8 | 2,3 | 2,3 | 2,6 |
| Maximum length. [ft] coil | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 150 |
| Catalog No. | 117090032 | 117110040 | 117125050 | 117125060 | 117160063 | 117160075 | 117200090 | 117200110 |
| Outer casing [in] | 7,9 | 7 | ,9 | 9,8 | 13,7 | 15 | 5,7 | 15,7 |
| Outer pipe PEX [in] DZ | 4,9 | 5 | ,5 | 6,3 | 9,8 | 9 | ,8 | 12,4 |
| Bending radius [ft] | - | | - | - | - | | - | - |
| Maximum length. [ft] coil | 40 | 4 | -0 | 40 | 20 | 2 | .0 | 20 |
| Catalog No. | 11720012 | 5 11722 | 24140 1 | 17224160 | 11735025 | 0 11740 | 00250 1 | 17400315 |



Single SYNCOPEX[®] pipeline GEO PE SDR 17

Pipeline for cold drinking water, cooling systems, heat pumps, geothermal installations. Transmission pipe PE-100 SDR 17 polyethylene 12201-2-2011. Thermal insulation made of closed cell foamed PEX, resistant to ageing.

Insulated pipeline is manufactured in accordance with PN EN 15632-1-3 norm.

| Outer casing [in] | 2 1/2 | 2 1/2 | 3 | 3,5 |
|---------------------------|-----------|-----------|-----------|-----------|
| Outer pipe PEX [in] DZ | 1 1/4 | 1 1/2 | 2 | 2 1/2 |
| Bending radius [ft] | 0,6 | 0,8 | 1 | 1 |
| Maximum length. [ft] coil | 300 | 300 | 300 | 300 |
| Catalog No. | 117163032 | 117163040 | 117190050 | 117190063 |

SYNCOPEX[®] innovation means measurable savings.

There are many types of piping systems available on market designed for different purposes, including pipelines for heat realization of hot water networks or water supply systems. The most popular series of types are single insulated transfer tubes in casing; however, one can also find designs of 4-5 separately insulated pipes in one housing, which are an extremely attractive alternative to standard solutions.

Pre-insulated PEX pipelines are made of materials that perfectly prevent from freezing of water flowing through the pipe system and protects against harmful effects of external factors. PEX pipes do not corrode and their smooth inner surface causes that friction and accumulation of deposit is reduced to minimum. PEX pre-insulated pipe systems are constructed of cross-linked polyethylene, most often also equipped with an EVOH barrier, which additionally prevents from the infiltration of oxygen into the installation. In addition, the innovative design of 2,4 or more pipes in a casing causes that airspace between their insulation and the enclosure insulation creates additional thermal barrier, that is tightly sealed with a thermal plug. These solutions make it easier to place multiple pipes in one casing. Pipelines do not lose their properties and are constantly characterized by an exceptional flexibility, that allows to bypass obstacles in ground without any need to use knees or bends. It also permits to unroll pipelines freely. With development of innovative pipe design technology, thermal efficiency of pre-insulated pipelines has been improved – placing multiple pipes in one thermo-insulating casing instead of traditional one or two, has allowed for a considerable reduction of the costs incurred by a user and thus a loss of heat on transmission, as a result of the reduction of excessive energy transfer to soil, in which pipelines are planted. Total heat loss of quadruple pipeline construction analysed from an angle of a use of different diameters of pipes in relation to the heat loss of individual pipes is much lower. **This gives a heat loss reduction of even up to 55-60%.**

Similarly in case of a comparison of heat losses of tubular structure of quadruple pipeline construction to ratios of double pipes construction, where **a reduction in heat losses during transmission are of 50%**. Reduction of heat loss has a wide economic aspect – **designs of 4-5 pipes in one casing reduce a cost of installation, including a cost of investment works**, as an area devoted to earth works (e.g. excavation and backfill, preparation of subsoil, also flaking and reparation of paved surfaces and lawns. It is also unnecessary to install additional branched insulation sets and longitudinal and protective wall passages or plugs. The construction of 4-5 pipes in one housing perfectly meets expectations of investors and simultaneously allows to develop new technical solutions. It provides excellent savings by reducing heat loss and avoids an extra cost of installing several pipelines instead of one. The system of 4-5 pipes in one housing is extremely practical and at the same time guarantees longevity **(full technical efficiency is defined for a minimum of 50 years)** which confirms that it is unrivalled on the market.



INSTALLATION PIPES SYNCOPEX®

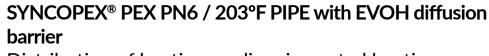
Pipe system for interior and industrial installations

Syncopex pipelines are manufactures in the diameter range from DZ 1/2" to DZ 17,7" made of cross-linked polyethylene, obtained as a result of the Engel modification method.

SYNCOPEX[®] pipes have an EVOX anti-diffusion barrier, protecting against penetration of oxygen into the heating medium. They are used to perform local distribution, underfloor heating and risers installation in central heating in multi family housing. SaniPEX pipes are used most often for local distribution and installation risers of cold and hot water in construction of single and multifamily housing. They must not be used in heating installations, due to the lack of EVOH anti-diffusion barrier.

The multi-layered system of pipes Pert-Al-Pert is available in the range of diameters from Dz 1/2" to Dz 1 ¼". Wide universality of these pipes allows the use of one type of pipe for mounting of central heating, underfloor heating and wall heating, as well as, hot and cold tap water. The pipes are characterized by high resistance to pressure and temperature, durability, minimal linear expansion, low weight, high plasticity and resistance.





Distribution of heating medium in central heating installations

Material: PEX / Series: SDR 11

| Mark Ø Dz x d [in] | Standard length [ft] | Trade Unit | Catalog number |
|-----------------------|----------------------|------------|---------------------------|
| 1/2 x 0,8 | scroll 600 | 600 | 516 200 016 |
| | scroll 1500 | 1500 | 516 500 016 |
| 3/4 x 0,8 | scroll 360 | 360 | 516 120 020 |
| | scroll 1450 | 1450 | 516 480 020 |
| 1 x 0,9 | scroll 300 | 300 | 516 100 025 |
| | scroll 6000 | 6000 | 516 200 025 |
| 1 x 0,9 | scroll 300 | 300 | 516 100 032 |
| | scroll 6000 | 6000 | 516 200 032 |
| 1 1/2 x 0,15 | scroll 300 | 300 | 516 100 040 |
| | scroll 4500 | 4500 | 516 200 040 |
| 2 x 0,18 | scroll 300 | 300 | 516 100 050 |
| | scroll 3000 | 3000 | 516 001 050 |
| 2 1/2 x 0,23 | scroll 300 | 300 | 516 100 063 |
| | scroll 1800 | 1800 | 516 500 063 |
| 3 x 0,27 | scroll 300 | 300 | 516 100 075 |
| | scroll 1500 | 1500 | 516 500 075 |
| 3,5 x 0,32 | scroll 300 | 300 | 516 100 090 |
| | scroll 900 | 900 | 516 300 090 |
| 4,3 x 0,39 | scroll 300 | 300 | 516 100 110 |
| | scroll 600 | 600 | 516 200 110 |
| 4,9 x 0,45 | scroll 1300 | 1300 | 516 100 125 |
| 6,3 x 0,58 | scroll 180 | 180 | 516 060 160 ₁₎ |
| 7,9 x 0,7 | 40 | 40 | 516 012 200 2) |
| 9,8 x ¾ | 40 | 40 | 516 012 225 ₂₎ |
| 9,8 x 0,9 | 40 | 40 | 516 012 250 ₂₎ |
| 11 × 1 | 40 | 40 | 516 012 280 2) |
| 12,4 × 1,1 | 40 | 40 | 516 012 315 ₂₎ |
| 13,8 x 1 ¼ | 40 | 40 | 516 012 355 ₂₎ |
| 17,7 x 2 | 40 | 40 | 516 012 450 ₂₎ |

1) item available on request

2) price and deadline determined on the request for proposal



SYNCOPEX[®] pipeline for underfloor heating PN6/203°F with EVOH anti-diffusion barrier

Material: PEX-a / Series: SDR 11

| Mark Ø Dz x d [in] | Standard length [ft] | Trade Unit [ft] | Catalog number |
|-----------------------|----------------------|--------------------|----------------|
| 1/2 x 0,8 | scroll 600 | 600 | 516 200 016 |
| | scroll 1500 | 1500 | 516 500 016 |
| 3/4 x 0,8 | scroll 360 | 360 | 516 120 020 |
| | scroll 1450 | 1450 | 516 480 020 |

SYNCOPEX® pipe saniPEX PN6 / 203°F for the transfer of hot or cold potable water

Material: PEX-a / Series: SDR 7,4

| Mark Ø Dz x d [in] | Standard length [ft] | Trade Unit [ft] | Catalog number |
|-----------------------|--------------------------|--------------------|----------------------------|
| 1/2 x 0,09 | scroll 300 | 300 | 510 100 016 |
| 3/4 x 0,11 | scroll 150 scroll 300 | 150 300 | 510 050 020 510 100 020 |
| 1 x 0,14 | scroll 150 scroll 300 | 150 300 | 510 050 025 510 100 025 |
| 1 1/4 x 0,17 | scroll 300 | 300 | 510 100 032 |
| 1 1/2 x 0,22 | scroll 300 | 300 | 510 100 040 |
| 2 x 0,27 | scroll 300 | 300 | 510 100 050 |
| 2 1/2 x 0,34 | scroll 300 | 300 | 510 100 063 |
| 3 x 0,41 | scroll 300 | 300 | 510 100 075 |
| 3,5 x 0,48 | scroll 300 | 300 | 510 100 090 |
| 4,3 x 0,59t | scroll 300 | 300 | 510 100 110 |
| 4,9 x 0,7 | scroll 300 | 300 | 510 012 125 1) |
| 6,3 x 0,9 | scroll 200 | 200 | 510 012 160 ₁₎ |
| 7,9 x 1,1 | 40 | 40 | 510 012 200 1) |
| 9,8 × 1,2 | 40 | 40 | 510 01 225 ₁₎ |
| | | | |







SYNCOPEX® PIPELINE PERT/AL/PERT

| Mark Ø Dz x d [in] | Standard length [ft] | | Trade Unit [ft] | Cata | Catalog number | |
|-----------------------------------|----------------------|-------|--------------------|-------|----------------|--|
| 1/2 x 0,8 | scroll 60 | 0 | 600 | 41 | 6 200 016 | |
| 1/2 x 0,8 | scroll 30 | 0 | 300 | 41 | 6 100 020 | |
| 1 x 0,12 | scroll 30 | 0 | 300 | 41 | 6 100 026 | |
| 1 x 0,12 | scroll 15 | 0 | 150 | 41 | 6 050 032 | |
| | | | | | | |
| Outer diameter of the pipe D [in] | | Ø 1/2 | Ø 3/4 | Ø 1 | Ø 1 1/4 | |
| Wall thic | ckness [in] | 2,0 | 2,0 | 3,0 | 3,0 | |
| Aluminum thic | ckness [in] | 0,2 | 0,25 | 0,3 | 0,4 | |
| Wei | ght [kg/ft] | 0,105 | 0,14 | 0,27 | 0,347 | |
| Water cap | acity (l/ft) | 0,113 | 0,201 | 0,314 | 0,531 | |
| Max. temperature (°F) | | 203 | 203 | 203 | 203 | |
| Max. pressure at 203⁰F | | 10 | 10 | 10 | 10 | |
| Min.ben | ding radiu | 5D | 5D | 5D | 5D | |

SYNCOPEX[®] Line pipe for water transmission, PE-100 SDR 17





16-32 m/m



40-160 m/m

Pipe adapter fitting - H HELA PN 6

The fittings are made of brass resistant to dezincification in accordance with PN-EN 1254-3/4 norm, thread according to ISO7

| No. of product | Outer diameter GZ of transmission pipe [in] | Hickness of the pipe PEX [in] | Outer thread GZ [in] |
|----------------|---|----------------------------------|----------------------|
| 606016001 | 1/2 | 0,8 | 1/2 |
| 606020001 | 3/4 | 0,8 | 3/4 |
| 606025001 | 1 | 0,9 | 1 |
| 606032001 | 1 | 0,11 | 1 |
| 606040114 | 1 1/4 | 0,15 | 1 1/4 |
| 606050114 | 1 1/4 | 0,18 | 1 1/4 |
| 606063002 | 2 | 0,23 | 2 |
| 606075002 | 2 1/2 | 0,27 | 2 1/2 |
| 606090003 | 3 | 0,32 | 3 |
| 606110004 | 4 | 0,39 | 4 |
| 606125005 | 4 | 0,45 | 4 |

Transition fitting HELA – S, PN6 / for connections of pipes with H type fittings on passage



The fittings are made of brass resistant to dezincification in accordance with PN-EN 1254-3/4, threads in accordance with ISO7

| No. of product | Outer diameter GZ of transmission pipe [in] | Outer thread GZ [in] |
|----------------|---|----------------------|
| 626025001 | 1 | 0,9 |
| 626032114 | 1 1/4 | 0,11 |
| 626040114 | 1 1/2 | 0,15 |
| 626050114 | 2 | 0,18 |
| 626063002 | 2 1/2 | 0,23 |
| 626075002 | 3 | 0,27 |
| 626090003 | 3,5 | 0,32 |
| 626110004 | 4,3 | 0,39 |
| 626125005 | 5 | 0,45 |

Compression Tee HELA - T

| No. of product | Outer diameter GW of transmission pipe [in] | Outer thread GW [in] |
|----------------|---|----------------------|
| 611020001 | 3 x 3/4 | 3/4 |
| 611025001 | 3 x 1 | 1 |
| 611032114 | 3 x 1 1/4 | 1 1/4 |
| 611050002 | 3 x 2 | 2 |
| 611065003 | 3 x 2 1/2 | 2 1/2 |
| 611080003 | 3 x 3 1/4 | 3 |
| 611100004 | 3 x 4 | 4 |
| 611125005 | 3 x 4,9 | 5 |
| | | |

Elbow HELA - V, 90°

| Nr art. | Outer diameter GW of transmission pipe [in] | Outer thread GW [in] |
|-----------|---|----------------------|
| 618020020 | 3/4 | 3/4 |
| 618025025 | 1 | 1 |
| 618032032 | 1 1/4 | 1 1/4 |
| 618050050 | 2 | 2 |
| 618065065 | 2 1/2 | 2 1/2 |
| 618080080 | 3 1/4 | 3 |
| 618100100 | 4 | 4 |
| 612125005 | 125 | 5 |

Coupling HELA – M



| No. of product | Outer diameter GZ of transmission pipe m/m | Outer thread GZ [in] |
|----------------|--|----------------------|
| 618020020 | 20 | 3/4 |
| 618025025 | 25 | 1 |
| 618032032 | 32 | 1.1/4 |
| 618050050 | 50 | 2 |
| 618065065 | 65 | 2.1/2 |
| 618080080 | 80 | 3 |
| 618100100 | 100 | 4 |

For sealing tee, muff and elbow connections and flange HELA type fittings threads, Teflon tapes and similar sealing materials should be used.







| No. of product | Outer diameter GZ of transmission pipe [in] | Outer thread GZ [in] |
|----------------|---|----------------------|
| 614020020 | 3/4 x 3/4 | 3/4 x 3/4 |
| 614025020 | 1 x 3,4 | 1 x 3,4 |
| 614025025 | 1 x 1 | 1 x 1 |
| 614032025 | 1.1/4 x 1 | 1.1/4x1 |
| 614032032 | 1.1/4 x 1.1/4 | 1.1/4 x 1.1/4 |
| 614050032 | 2 x 1.1/4 | 2 x 1.1/4 |
| 614050050 | 2 x 2 | 2 x 2 |
| 614080050 | 3 1/4 x 2 | 3 x 2 |
| 614080080 | 3 1/4 x 3 1/4 | 3 x 3 |
| 614100080 | 4 x 3 1/4 | 4 x 3 |
| 614100100 | 4 x 4 | 4 x 4 |

Nipple HELA- D – with external thread

Reduction fitting HELA – B



| No. of product | Outer diameter GW of transmission pipe [in] | Outer thread GW [in] |
|----------------|---|-------------------------|
| 613025020 | 1 x 3/4 | 1 x 3/4 |
| 613032025 | 1.1/4 × 1 | 1.1/4 x 1 |
| 613050025 | 2 x 1 | 2 x 1 |
| 613050032 | 2 x 1.1/4 | 2 x 1.1/4 |
| 613065050 | 2.1/2 × 2 | 2.1/2 x 2 |
| 613080050 | 3 1/4 x 2 | 3 x 2 |
| 613080065 | 3 1/4 x 2.1/2 | 3 x 2.1/2 |
| 613100050 | 4 x 2 | 4 x 2 |
| 613100080 | 4 x 3 1/4 | 4 x 3 |
| 613125080 | 4,9 x 3 1/4 | 5 x 3 |
| 613125100 | 4,9 x 4 | 5 x 4 |

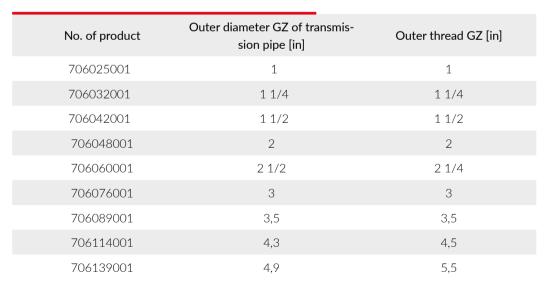
23

Flange HELA – F



| No. of product | Outer diameter GW of trans- mission pipe [in] | Outer thread GW [in] |
|----------------|--|----------------------|
| 619000025 | 1 | 1 |
| 619000032 | 1 1/4 | 1 1/4 |
| 619000050 | 2 | 2 |
| 619000080 | 3 1/4 | 3 |
| 619000100 | 4 | 4 |

Transition fitting for welding HELA, PN 6





25 mm



Wall transitions

Tightly protected with a heat shrink sleeve from the ground side. Composition: SN 8 casing pipe, shrink sleeve

| Product No. | Outer diameter DZ of pipe pre-insulated [in] | Outer diameter GZ of pipe protective [in] | Minimum length [in] |
|-------------|--|---|------------------------|
| 810101180 | 3-4 | 6.9 | 19.7 |
| 810125180 | 4 | 6.9 | 19.7 |
| 810140180 | 5.5 | 9.8 | 19.7 |
| 810160220 | 6.9 | 9.8 | 19.7 |
| 810200260 | 79 | 12.4 | 19.7 |
| 810250300 | 98 | 13.7 | 19.7 |

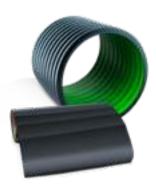
Pipe tee insulation set

| Product No. | Outer diameter DZ of pipe pre-insulated [in] | Outer diameter GZ of pipe protective [in] | Minimum length [in] |
|-------------|--|---|------------------------|
| 811110180 | 3-4 | 7.4 | 25.6 |
| 811125180 | 4 | 7.4 | 25.6 |
| 811140180 | 5.5 | 7.4 | 25.6 |
| 811160200 | 7.9 | 8.8 | 33.5 |
| 811200250 | 7.9 | 8.8 | 33.5 |
| 811250280 | 9.8 | 11.1 | 33.5 |

Simple insulation set

Composition: insulating sleeve, bands, heat shrink sleeve

| Product No. | Outer diameter DZ of pipe pre-insulated [in] | Outer diameter GZ of pipe protective [in] | Minimum length [in] |
|-------------|--|---|------------------------|
| 812110180 | 3-4 | 7.4 | 21.7 |
| 812125180 | 4 | 7.4 | 21.7 |
| 812140180 | 5.5 | 7.4 | 21.7 |
| 813160200 | 6.9 | 8.8 | 25.6 |
| 813200250 | 7.9 | 8.8 | 25.6 |
| 813250280 | 9.8 | 11.1 | 25.6 |



SYNCOPex











| Product No. | Outer diameter DZ of pipe pre-insulated [in] | Outer diameter GZ of pipe protective [in] | Minimum length [in] |
|-------------|--|---|------------------------|
| 814110180 | 3-4 | 7.4 | 17.7 |
| 814125180 | 4 | 7.4 | 17.7 |
| 814140180 | 5.5 | 7.4 | 17.7 |
| 814160200 | 7.9 | 8.8 | 19.7 |
| 814200250 | 7.9 | 8.8 | 19.7 |
| 814250280 | 9.8 | 11.1 | 19.7 |

Caps – shrinkable plugs

Angular insulation set

| Product No. | For pipe PEX [in] | Outer diameter. Pre-insulated pipe. [in] |
|-------------|-------------------|---|
| 910011050 | 1" - 2" | 3,5 - 4,3 |
| 910012550 | 1 1/2 - 2 | 4,9 |
| 910014075 | 2" - 3" | 5,5 |
| 910016090 | 2 1/2 - 3,5 | 6,3 |
| 910200110 | 3,5 - 4,3 | 7,9 |
| 910224125 | 4,9 | 7,9 - 9,8 |
| 910250160 | 5.5 - 6.9 | 9.8 |



| Product No. | For pipe PEX [in] | Outer diameter. Pre-insulated pipe. [in] |
|-------------|-------------------|---|
| 911214024 | 2 x 1 - 1 1/2 | 5,5 |
| 911216024 | 2 x 1 1/4 - 1 1/2 | 6,3 |
| 911220025 | 2 x 2 | 7,9 |
| 911222475 | 2 x 2 1/2 (2 x 3) | 9,8 |
| 912140032 | 1 1/2 + 3,4 | 5,5 |
| 912160050 | 2 + 3/4 | 6,3 |
| 912200063 | 2 1/2 + 1 1/4 | 7,9 |
| 912224075 | 3 + 1 1/2 (2) | 9,8 |



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Caps - interference plugs for a single pipeline

| Product No. | For pipe PEX [in] | Outer diameter. Pre-insulated pipe. [in] |
|-------------|-------------------|---|
| 920009025 | 1 | 3,5 |
| 920009032 | 1 1/4 | 3,5 |
| 920011040 | 1 1/2 | 4,3 |
| 920011050 | 2 | 4,9 |
| 920014063 | 2 1/2 | 5,5 |
| 920016060 | 2 1/2 | 6,3 |
| 920016075 | 3 | 6,3 |
| 920016075 | 3 | 7,9 |
| 920020075 | 3,5 | 6,3 |
| 920020090 | 3,5 | 7,9 |
| 920200110 | 4,3 | 7,9 |
| 920200125 | 4,9 | 7,9 |
| | | |

Caps - push in plugs for multi-pipe pipelines

| Product No. | For pipe PEX [in] | Outer diameter. Pre-insulated pipe. [in] |
|-------------|-------------------|---|
| 921140225 | 2 x 1 | 5,5 |
| 921140232 | 2 x 1 1/4 | 5,5 |
| 921160240 | 2 x 1 1/2 | 6,3 |
| 921160232 | 2 x 1 1/4 | 6,3 |
| 921200240 | 2 x 1 1/2 | 7,9 |
| 921200250 | 2 x 2 | 7,9 |
| 921224263 | 2 x 2 1/2 | 9,8 |
| 921250275 | 2 x 3 | 9,8 |
| 922140201 | 3/4 + 1/2 | 5,5 |
| 922140252 | 1 + 3/4 | 5,5 |
| 922140322 | 1 1/4 + 3/4 | 5,5 |
| 922140402 | 1 1/2 + 1 | 5,5 |
| 922160502 | 2 + 1 | 6,3 |
| 922200633 | 2 1/2 + 1 1/4 | 7,9 |
| 922224634 | 2 1/2 + 1 1/2 | 9,8 |
| 922224634 | 2 + 1.1/4 | 9.8 |
| 922250635 | 2.1/2 + 1.1/4 | 9.8 |
| 922250636 | 3 + 1.1/4 | 9.8 |
| | | |





| Product No. | For pipe PEX [in] | Outer diameter. Pre-insulated pipe. [in] |
|-------------|---------------------------------|---|
| 924160252 | 2 x 1 1 x 3/4 1 x 1/2 | 6,3 |
| 924160323 | 2 x 1 1/4 1 x 1 1 x 3/4 | 6,3 |
| 924200240 | 2 x 1 1/2 1 x 1 1 x 3/4 | 7,9 |
| 924200250 | 2 x 2 1 x 1 1/4 1 x 3/4 | 7,9 |
| 924250250 | 2 x 2 1 x 1 1/2 1 x 1 | 9,8 |
| 924250250 | 2 x 2 1 x 1 1/2 1 x 1 1/4 | 9,8 |
| 924250263 | 2 x 2 1/2 1 x 1 1/2 1 x 1 | 9,8 |
| 924250264 | 2 x 3 1 x 1 1/2 1 x 1 | 9,8 |
| | | |

Caps - interference plugs for multi-pipe pipelines

Warning tape with metal insert

| Nr art. | Roll width [in] | Roll length [in] |
|-----------|-----------------|------------------|
| 930100100 | 4 | 300 |



Repair tape - Heat shrink

| Nr art. | Widthrolls [in] | Thickness [in] tapes | Thickness glue [in] |
|-----------|-----------------|----------------------|---------------------|
| 940150015 | 5 | 0,4 | 0,04 |





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