Rhinoflex® by Rovanco®

FLEXIBLE PRE-INSULATED PIPING

The right product for the distribution of hot and cold fluids from -20° to 204°F

Single line Rhinoflex
Available from 3/4" thru 5" with PEX Carrier Pipe and 1 1/2" thru 5" with PE Pipe.

Dual line Rhinoflex
Available from 1" thru 2" with PEX Carrier Pipe.

Rovanco Piping Systems, Inc.
Rhinoflex pre-insulated PEX and Polyethylene comes in the longest lengths available from any supplier of flexible pre-insulated piping. The charts provide dimensional data to allow the user to select the right Rhinoflex piping system for their needs. You can rely on Rovanco’s “Thousands of Miles” of experience on hundreds of thousands of piping systems worldwide to help you select the right product for your piping systems! Rhinoflex is available with a PEX or PE carrier pipe.

There are more than 700 miles of flexible pre-insulated pipe with PEX or PE carrier pipe installed in the U.S. and more than 13,000 miles installed worldwide over a 30 year period!

Flexible pre-insulated piping has taken over the market for 4" and smaller pre-insulated pipe because it is a high quality product and it has the lowest installed cost of any pre-insulated pipe. The long lengths of flexible pre-insulated Rhinoflex result in few or no underground joints and up to 60% less labor resulting in an installed cost savings of 25 to 40%!

Rhinoflex can be pulled through road sleeves up to 1,000 ft or directionally bored under roadways, walkways, driveways, streams and ponds! If installed with pipe weights, it can be laid directly in a pond, lake, river or stream!

Rhinoflex can easily be cut to length with just a hacksaw. No special tools or equipment are required to install. Rovanco provides complete installation kits, accessory materials, installation instructions. No special training or skills are required.

Carrier Pipe
For hot service, PEX A is the highest quality crosslinked polyethylene pipe available with an oxygen diffusion barrier. NSF approved for domestic use.

For cold service, high density polyethylene carrier pipe is suitable for temperatures down to -20°F. Can be buttfused or electrofusion welded.

Insulation
The high thermal efficiency of flexible urethane foam allows for a smaller outer jacket size than some competitors, and lower heat losses.

Outer Jacket
The polyethylene outer jacket is the heaviest available in the industry and corrugated to be flexible. It is “Rhino tough”, providing the ultimate in long term protection.
Rhinoflex is built to take the rough handling experienced at the job site. The components are all flexible, non-corrosive and tough!

Since Rhinoflex is available in lengths of up to 2,000 feet with no field joints, there is no need to over excavate or put workmen into the trench to join, insulate, and seal pipe joints.

The smooth inner surface of the PEX and PE pipe, few if any coupling joints, and virtual elimination of fittings for changes in routing ensures even flow of the fluids and reduced pressure drops throughout the systems.

Joining Rhinoflex is quick and sure. Only the highest quality brass couplings are used to ensure leak proof joints for the life of the system.
Rhinoflex® Guide Spec.

The pre-insulated piping system shall be of a flexible design and all components of carrier pipe, insulation and jacket must be able to expand and contract as a unit without overstressing or adversely affecting any of the materials. The pipe, insulation and jacket will all be made of materials that will not corrode. The system will be designed to be installed in a manner that will not require expansion loops or compensators of any type. The system will be installed with the fewest number of underground joints possible. The piping system supplier will be responsible for the overall design of the expansion and contraction compensation. The system will be supplied complete with coupling fittings, insulation kits and termination fittings all supplied by the piping system supplier. All products shall be manufactured to ISO 9002 standards. NSF approved.

Carrier Pipe Crosslinked PEX pipe for temperatures up to 204°F or polyethylene pipe for temperatures up to 110°F. NSF and ASTM certified for PEX pipes.

Insulation All insulation materials will be supplied by the system manufacturer and will be polyurethane closed cell insulation. The insulation will be furnished in the thicknesses as shown in Charts 1 & 2 for the respective carrier pipe sizes.

Jacket Material The outer protective jacket shall be corrugated seamless polyethylene completely encompassing and protecting the insulation from moisture and damage, designed for H-20 loading at a burial depth of 2 feet minimum. The jacket will be provided in a diameter and thickness as shown in Charts 1 & 2.

Fittings All fittings and connections will be either brass, copper or nickel-plated. They will be installed in accordance with the detailed installation instructions. All buried fittings and couplings will be insulated and sealed per the system supplier’s instructions. All fittings for domestic use to be NSF and ASTM approved.

End Seals All direct buried ends of insulated pipe with exposed insulation will be sealed with polyethylene end seal.

Manholes The contractor has the option to supply field built manholes or factory supplied polyethylene or coated steel manholes. If the system supplier is providing factory engineered manholes, they will be installed per the supplier instructions.

Field Tests All carrier pipe systems should be tested at 1.12 times the operating pressure prior to burial.

Backfill The pipe should be backfilled with clean fill a minimum of 4 inches on the trench bottom, 3 inches on either side, 2 inches between adjacent pipes and 6 inches over the top of the jacket. The balance of the trench can be filled in with native materials containing rocks no larger than 2 inches.

Supplier Assistance At customer’s request, system supplier will provide a qualified field service technician on-site to properly train the installing personnel in all phases of installation.

Approved Vendors Rhinoflex, as supplied by Rovanco, Joliet, Illinois or approved equal. Any alternate supplier must submit their technical data to the engineer 20 days prior to bid date to be approved in writing as an equal.

Rovanco’s products are covered by various U.S. patents. Rhinoflex®, Insul-B®, Rhinoflex® and Rhinocast® are federally registered trademarks.

All Rhinoflex piping is ASTM and metric sized and will fit up to all other types of ASTM and metric sized flexible pre-insulated piping systems. For more specific data regarding other pipe sizes, insulation thicknesses, pressure drop, heat loss, systems design, heat tracing or pricing, please contact your local Rovanco representative.

Rhinoflex is available exclusively from Rovanco Piping Systems, Inc.

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