

Ecoflex® Pre-insulated Pipe Systems

A Flexible, Sustainable and Durable Solution

Designed for fluid transfer in a variety of hydronic heating, cooling and potable-water applications, Ecoflex® pre-insulated pipes are easy to install, dependable, cost-effective and energy saving.

Lightweight and flexible, Ecoflex installs easily and quickly in commercial and residential applications — even over obstacles and around corners.

Recognized for its ability to stand up to harsh environments, Ecoflex, now available in ASTM sizes, is virtually maintenance-free. This is especially important since Ecoflex usually involves an underground installation. With coil lengths available up to 600', Ecoflex practically eliminates the need for underground joints — resulting in seamless runs of piping.

Solutions for Any Water Distribution System

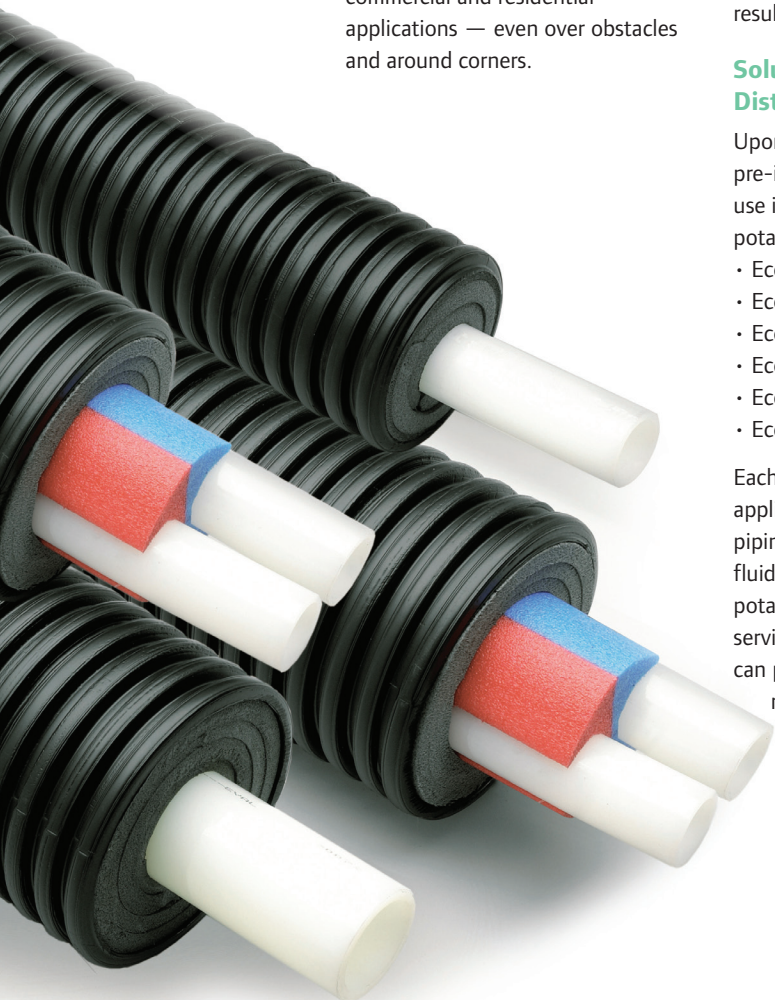
Uponor offers several different pre-insulated piping products for use in hydronic heating, cooling and potable-water distribution systems:

- Ecoflex Thermal Single
- Ecoflex Thermal Twin
- Ecoflex Potable PEX Single
- Ecoflex Potable PEX Twin
- Ecoflex Potable HDPE
- Ecoflex Potable Plus

Each offers an ideal solution for applications that require underground piping to distribute water and other fluids from heating, cooling or potable-water sources. Featuring service pipe from 1" up to 4", Ecoflex can perform and meet the durability requirements of your most demanding environments.

Features and Benefits

- Features Uponor's durable Engel-method crosslinked polyethylene (PEX-a) or high-density polyethylene (HDPE) tubing
- Long coils result in fewer splices (up to 600' without a connection), saving time, labor and costs, and reducing potential leak points
- No joints required when changing direction or grade as well as avoiding existing features such as rocks, gardens or buildings
- Can be threaded through concrete or steel conduit
- Watertight, corrugated jacket helps keep water, dirt and debris from compromising insulation integrity
- Manufactured with all non-corrosive materials
- Long custom lengths and tight bending radius reduces scrap
- Works with Uponor's ProPEX® fitting system (up to 2") or WIPEX™ dezincification-resistant (DZR) brass compression fittings



Ecoflex Product Overview

Product	Description	Codes and Standards
 <p>Ecoflex Thermal Single and Twin</p>	<p>ASTM Ecoflex Thermal Single and Twin are pre-insulated piping for buried or aboveground commercial and residential hydronic radiant heating and cooling applications. Service pipes are made from oxygen-diffusion barrier PEX-a Wirsbo hePEX™ tubing, protected by multi-layer, PEX-foam insulation and covered by a corrugated, watertight, HDPE jacket. Use with ProPEX fittings (up to 2") or WIPEX DZR brass compression fittings.</p>	<p>Codes: IMC, UMC</p> <p>Manufacturing Standards: ASTM F876, F877 and F1960; CSA B137.5</p> <p>Product Listings: NSF-rfh, NSF-pw</p>
 <p>Ecoflex Potable PEX Single and Twin</p>	<p>Ideal for hot and cold potable-water applications, ASTM Ecoflex Potable PEX Single and Twin feature Uponor AquaPEX® (PEX-a) service pipe protected by multi-layer, PEX-foam insulation and covered by a corrugated, watertight, HDPE jacket. Ecoflex Potable PEX uses ProPEX fittings (up to 2") or WIPEX DZR brass compression fittings.</p>	<p>Codes: UPC, IPC, NSPC, NPC of Canada</p> <p>Manufacturing Standards: ASTM F876, ASTM F877, CSA B137.5</p> <p>Product Listings: NSF-pw, PEX 5106</p>
 <p>Ecoflex Potable HDPE</p>	<p>Perfect for cold potable-water, cooling and low-temperature heating applications, ASTM Ecoflex Potable HDPE features HDPE service pipe protected by multi-layer, PEX-foam insulation and covered by a corrugated, watertight, HDPE jacket. Ecoflex Potable HDPE uses any industry-standard SDR 11 HDPE fitting method.</p>	<p>Codes: UPC, IPC, NSPC, NPC of Canada</p> <p>Manufacturing Standards: PE 3408, PE 3608 or PE 3454; AWWA C906; ASTM F714</p> <p>Product Listings: NSF-pw</p>
 <p>Ecoflex Potable Plus</p>	<p>Suitable for use as a water pipe or pressure-sewage system for resort villages, holiday homes, residential areas, industry ski centers and other locations susceptible to freezing. Ecoflex Potable Plus features Uponor AquaPEX (PEX-a) or HDPE service pipe with a self-regulating heating cable, all protected by multi-layer, PEX-foam insulation and covered by a corrugated, watertight, HDPE jacket.</p> <p>Ecoflex Potable Plus products are available on a made-to-order basis.</p>	<p>Codes: UPC, IPC, NSPC, NPC of Canada</p> <p>Uponor AquaPEX Manufacturing Standards: ASTM F876, ASTM F877, CSA B137.5</p> <p>HDPE Manufacturing Standards: PE 3408, PE 3608 or PE 3454; AWWA C906; ASTM F714</p> <p>Uponor AquaPEX Product Listings: NSF-pw, PEX 5106</p> <p>HDPE Product Listings: NSF-pw</p>

Main Accessories

Rubber End Caps

Made from EPDM rubber, these end caps are required on all exposed ends of Ecoflex pipes to avoid groundwater contamination. It is crucial to create a water-resistant seal on the ends of the piping. Without this seal, water can enter the pre-insulated pipe and dramatically reduce the effectiveness of the system performance.



ProPEX Fittings

Available in both brass and engineered plastic (EP) up to 2", ProPEX fittings include a full line of products designed to ensure a strong, reliable connection with Wirsbo hePEX tubing and Uponor AquaPEX.



WIPEX Fittings

Adapter fittings are required for all PEX service pipe connections. Made with DZR brass, the WIPEX fittings are specifically designed for connecting Wirsbo hePEX and Uponor AquaPEX tubing. Fittings available in 1", 1¼", 1½", 2", 2½", 3", 3½" and 4".



Refer to pages 4 and 5 for the complete Ecoflex offering.

Ecoflex Applications

Uponor's ASTM Ecoflex pre-insulated pipe has many commercial and residential applications — predominantly in heating, cooling and potable-water systems for large-scale complexes such as schools and colleges, resorts and hotels, hospitals and institutions, and housing developments.

Radiant heating and snow and ice melting systems also use Ecoflex as the pipe distribution system of choice. Outdoor furnace and boiler contractors as well as homeowners depend on our products for a trouble-free, energy-saving solution to piping underground when the heat source is located away from the structure.

No matter how secluded or complex the project, Uponor has pre-insulated pipe systems for all your system needs.

Commercial and Residential Applications

- Universities, schools and institutions
- Bio-waste digesters
- Hospitals and nursing homes
- Snow and ice melting for driveways and parking entrance areas
- Transportation, cultural and recreational
- Water/sewage treatment plants (chemical transport)
- Car washes

Agricultural Applications

- Wood chip boiler
- Bio-digester for producing heat from manure
- Greenhouse heat
- Barn water bowl for stock from well

Residential Applications

- Connection to remote heat source
- Geothermal
- Boiler (gas, oil, wood)
- Solar
- Heat/cool additional buildings
- Garages, sheds, workshops
- Guest houses and studios
- Pool/spa heating
- Snow and ice melting for driveways and sidewalks
- Supply and return for slab-on-grade radiant floor heating



Application	Ecoflex Thermal Single	Ecoflex Thermal Twin	Ecoflex Potable PEX Single	Ecoflex Potable PEX Twin	Ecoflex Potable HDPE
Service Pipe	Wirsbo hePEX	Wirsbo hePEX	Uponor AquaPEX	Uponor AquaPEX	Uponor HDPE
Oxygen Diffusion Barrier	Y	Y	N	N	N
Single Pipe System	Y	N	Y	N	Y
Twin Pipe System (Supply and Return in Single Jacket)	N	Y	N	Y	N
Service Pipe Sizes Available	1", 1¼", 1½", 2", 2½", 3", 3½", 4"	1", 1¼", 1½", 2", 2½"	1", 1¼", 1½", 2", 3"	1", 1¼", 1½", 2"	1¼", 1½", 2", 3", 4"
Available Cut to Measure	Y	Y	Y	Y	Y
Suitable for Fluid Temperatures 140°F to 203°F (60°C to 95°C)	Y	Y	Y	Y	N
Suitable for Fluid Temperatures up to 140°F (60°C)	Y	Y	Y	Y	Y
Suitable for System Pressures (at temperature) up to 87 psi/6 bar***	Y	Y	Y	Y	Y*
Recommended for Potable Installations	N	N	Y	Y	Y
Recommended for Heating Systems	Y	Y	Y***	Y***	Y***
Recommended for Cooling Systems	Y**	Y**	Y***	Y***	Y***
Recommended for Combined Heating and Cooling Systems	Y	Y	Y***	Y***	Y***

*See temperature and pressure rating for the pipe. For heating and cooling applications, note that Ecoflex Potable HDPE does not have an oxygen barrier.

**Thermal pipes are suitable for cooling if an oxygen barrier is required. However, if an oxygen barrier is not necessary, use Ecoflex Potable PEX or HDPE.

***Since Ecoflex Potable PEX and HDPE do not have an oxygen barrier, they should only be used in a radiant system with non-ferrous components.

Pre-insulated Pipe Systems Offering

Ecoflex Thermal Single

Part No.	Part Description	Coil Weight	Coil Dimension
5015510	1" Thermal Single with 5.5" Jacket, 600-ft. coil	450 lbs.	83" x 53"
5015513	1¼" Thermal Single with 5.5" Jacket, 500-ft. coil	425 lbs.	83" x 44"
5016915	1½" Thermal Single with 6.9" Jacket, 300-ft. coil	420 lbs.	78" x 49"
5016920	2" Thermal Single with 6.9" Jacket, 300-ft. coil	540 lbs.	78" x 49"
5016925	2½" Thermal Single with 6.9" Jacket, 300-ft. coil	591 lbs.	78" x 49"
5017930	3" Thermal Single with 7.9" Jacket, 300-ft. coil	840 lbs.	84" x 53"
5017935	3½" Thermal Single with 7.9" Jacket, 300-ft. coil	894 lbs.	84" x 53"
5017940	4" Thermal Single with 7.9" Jacket, 300-ft. coil	1,110 lbs.	86" x 53"

Ecoflex Thermal Single



Ecoflex Thermal Twin

Part No.	Part Description	Coil Weight	Coil Dimension
5026910	1" Thermal Twin with 6.9" Jacket, 600-ft. coil	780 lbs.	93" x 64"
5026913	1¼" Thermal Twin with 6.9" Jacket, 500-ft. coil	700 lbs.	93" x 53"
5026915	1½" Thermal Twin with 6.9" Jacket, 300-ft. coil	465 lbs.	78" x 49"
5027920	2" Thermal Twin with 7.9" Jacket, 300-ft. coil	804 lbs.	84" x 53"
5027925	2½" Thermal Twin with 7.9" Jacket, 300-ft. coil	1,020 lbs.	84" x 53"

Ecoflex Thermal Twin



Ecoflex Potable PEX Single

Part No.	Part Description	Coil Weight	Coil Dimension
5215510	1" Potable PEX with 5.5" Jacket, 600-ft. coil	450 lbs.	83" x 53"
5215513	1¼" Potable PEX with 5.5" Jacket, 500-ft. coil	425 lbs.	83" x 44"
5216915	1½" Potable PEX with 6.9" Jacket, 300-ft. coil	420 lbs.	78" x 49"
5216920	2" Potable PEX with 6.9" Jacket, 300-ft. coil	540 lbs.	78" x 49"
5217930	3" Potable PEX with 7.9" Jacket, 300-ft. coil	840 lbs.	84" x 53"

Ecoflex Potable HDPE



Ecoflex Potable PEX Twin

Part No.	Part Description	Coil Weight	Coil Dimension
5226910	1" Potable PEX Twin with 6.9" Jacket, 600-ft. coil	780 lbs.	93" x 64"
5226913	1¼" Potable PEX Twin with 6.9" Jacket, 500-ft. coil	700 lbs.	93" x 53"
5226915	1½" Potable PEX Twin with 6.9" Jacket, 300-ft. coil	465 lbs.	78" x 49"
5227920	2" Potable PEX Twin with 7.9" Jacket, 300-ft. coil	804 lbs.	86" x 53"

Ecoflex Potable PEX Single



Ecoflex Potable HDPE

Part No.	Part Description	Coil Weight	Coil Dimension
5115513	1¼" Potable HDPE with 5.5" Jacket, 300-ft. coil	300 lbs.	72" x 42"
5115515	1½" Potable HDPE with 5.5" Jacket, 300-ft. coil	300 lbs.	72" x 42"
5115520	2" Potable HDPE with 5.5" Jacket, 300-ft. coil	420 lbs.	72" x 42"
5116930	3" Potable HDPE with 6.9" Jacket, 300-ft. coil	720 lbs.	78" x 49"
5117940	4" Potable HDPE with 7.9" Jacket, 300-ft. coil	1,080 lbs.	86" x 53"

Ecoflex Potable PEX Twin



Ecoflex Potable Plus

Part No.	Part Description
Available on a Made-to-order Basis	

Ecoflex Potable Plus



Pre-insulated Pipe Systems Offering

Accessories

Part No.	Part Description	Each Qty.	Weight (Lbs./Ea.)
5855513	End Cap 1", 1¼" for 5.5" Jacket	1	1.00
5855520	End Cap 1¼", 1½" and 2" HDPE pipe, 5.5" Jacket	1	1.10
5856930	End Cap 1½", 2", 2½" PEX, 3" HDPE pipe for 6.9" Jacket	1	1.10
5857940	End Cap 3", 3½", 4" PEX, 4" HDPE pipe, 7.9" Jacket	1	1.90
5956915	Twin End Cap 1", 1¼", 1½" for 6.9" Jacket	1	1.50
5957925	Twin End Cap 2" and 2½" PEX pipe, 7.9" Jacket	1	1.50
5550010	WIPEX Fitting 1" PEX x 1" NPT	1	0.64
5550013	WIPEX Fitting 1¼" PEX x 1¼" NPT	1	0.95
5550015	WIPEX Fitting 1½" PEX x 1½" NPT	1	1.10
5550020	WIPEX Fitting 2" PEX x 2" NPT	1	2.10
5550025	WIPEX Fitting 2½" PEX x 2" NPT	1	2.80
5550030	WIPEX Fitting 3" PEX x 2½" NPT	1	4.60
5550035	WIPEX Fitting 3½" x 3" NPT	1	6.00
5550040	WIPEX Fitting 4" PEX x 4" NPT	1	10.00
5550101	WIPEX Sleeve Pliers 1" to 1½"	1	0.20
5550102	WIPEX Sleeve Pliers 1½" to 3½"	1	0.50
5550103	WIPEX Sleeve Pliers 3½" to 4"	1	1.20
1018326	Ecoflex Connection Vault, 6 outlet	1	108.00
1018327	Ecoflex Connection Vault, 8 outlet	1	112.00
1018379	Vault Shrink Sleeve for 5.5" Jacket	1	1.00
1018380	Vault Shrink Sleeve for 6.9" Jacket	1	1.00
1018381	Vault Shrink Sleeve for 7.9" Jacket	1	1.00
1018378	Uponor Shrinkable Tape, 10-in. x 9-ft. roll	1	30.00
1021992	Straight Insulation Kit, 5.5", 6.9", 7.9"	1	14.00
1021990	Tee Insulation Kit, 5.5", 6.9", 7.9"	1	18.00
1007355	H-Insulation Kit, 5.5", 6.9", 7.9"	1	42.00
1021991	Elbow Insulation Kit, 5.5", 6.9", 7.9"	1	15.00
1018269	Wall Sleeve with Heat Shrink for 5.5" Jacket	1	3.00
1018270	Wall Sleeve with Heat Shrink for 6.9" Jacket	1	3.50
1018268	Wall Sleeve with Heat Shrink for 7.9" Jacket	1	4.00
1007365	Wall Sleeve for 5.5" Jacket	1	2.50
1007366	Wall Sleeve for 7.9" Jacket	1	3.50

Single and Twin Rubber End Cap



WIPEX Fitting



WIPEX Sleeve Pliers



Connection Vault



H-Insulation Kit



Tee Insulation Kit



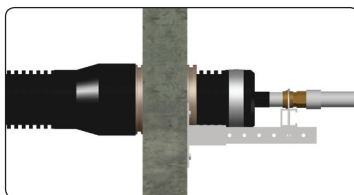
Elbow Insulation Kit



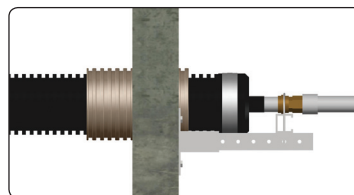
Wall Seals

Part No.	Part Description	Core Drill	Each Qty.	Weight (Lbs./Ea.)
1007360	Compression Wall Seal for 5.5" Jacket	8"	1	5.50
1007361	Compression Wall Seal for 6.9" Jacket	10"	1	7.87
1007362	Compression Wall Seal for 7.9" Jacket	10"	1	11.75

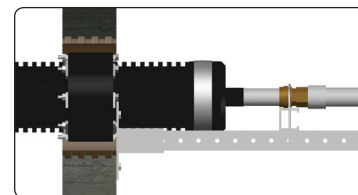
Wall Sleeve with Heat Shrink Seal Kit



Wall Sleeve

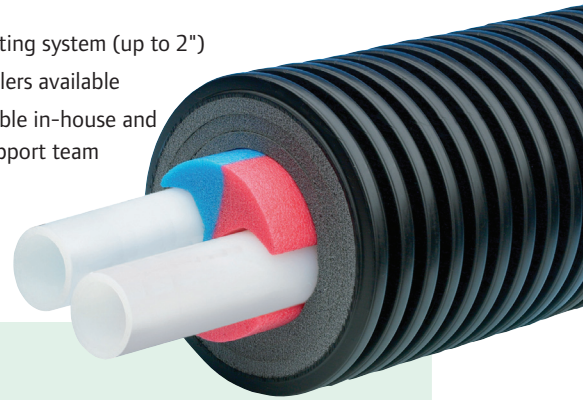


Compression Wall Seal



Ecoflex vs. Other Plastic Pre-insulated Pipes

- High-quality insulation to protect against heat loss
- Competitively priced
- Multiple stocking locations throughout North America
- Custom cut-to-length service
- Tightest bend radius available
- Quick response to delivery requests
- Produced in North America (Qualifies for Buy American Act and American Recovery and Reinvestment Act)
- ProPEX fitting system (up to 2")
- Pipe uncoilers available
- Incomparable in-house and on-site support team



Ecoflex vs. Rigid Pre-insulated Pipes

- Ecoflex is lightweight and flexible.
- Ecoflex provides seamless coil lengths up to 600', eliminating the need for many underground joints.
- Ecoflex does not require a second step of insulation after installation.
- Ecoflex does not require welding or soldering.
- Ecoflex does not require expansion loops or concrete anchors.
- Ecoflex requires fewer fittings and connections, reducing potential leak points.
- Ecoflex is faster to install – quickly snakes around barriers, obstacles and corners.
- Ecoflex stands up to harsh environments.
- Ecoflex is virtually maintenance-free.



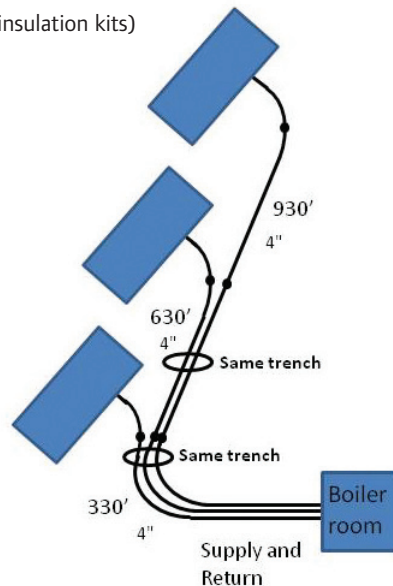
Flexible Ecoflex Pre-insulated Pipe



Rigid Pipe

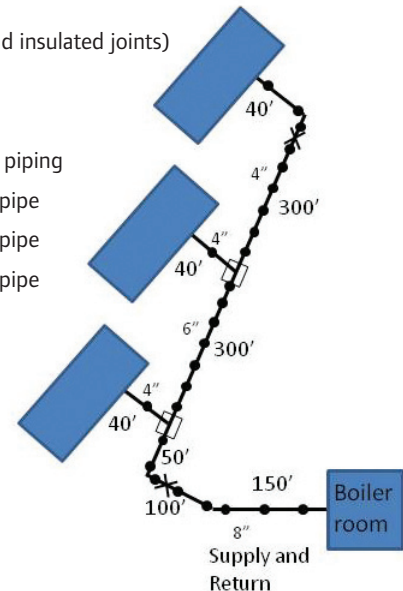
Flexible Alternative

- 12 field joints (straight insulation kits)
- No anchors
- 3,780 feet of 4" pipe
- 270 hours Labor



Rigid Piping

- 52 field joints (welds and insulated joints)
- 2 manholes with valves
- 4 concrete anchors
- 40-foot lengths of rigid piping
- 2 x 300 feet of 8" steel pipe
- 2 x 300 feet of 6" steel pipe
- 2 x 420 feet of 4" steel pipe
- 650 hours of labor



Ecoflex Pre-insulated Pipe System FAQs

What is Ecoflex®?

Ecoflex is a pre-insulated pipe system at its best — versatile, flexible and durable. Ecoflex consists of ASTM Wirsbo hePEX™, Uponor AquaPEX® or HDPE pipe encased in closed-cell, polyethylene-foam insulation and covered by a watertight, corrugated HDPE jacket.

Why should I consider using Ecoflex?

The unique properties of Ecoflex make it ideal for commercial and residential applications that require insulated underground piping. These lightweight, flexible, pre-insulated pipes are strong enough to tackle any application, yet install easily and quickly. The long coil lengths eliminate most buried connections, saving time and money while also limiting liability concerns.

Are there different types of pipe in Ecoflex?

Yes. Ecoflex Thermal features Wirsbo hePEX pipe that has an oxygen-diffusion barrier. Ecoflex Potable PEX has Uponor AquaPEX pipe, and Ecoflex Potable HDPE uses high-density polyethylene pipe.

What pipe sizes are available with Ecoflex?

- Thermal Single (Wirsbo hePEX) pipe is available in 1", 1¼", 1½", 2", 2½", 3", 3½" and 4" sizes.
- Thermal Twin (Wirsbo hePEX) pipe is available in 1", 1¼", 1½", 2" and 2½" sizes.
- Potable PEX Single (Uponor AquaPEX) pipe is available in 1", 1¼", 1½", 2" and 3" sizes.
- Potable PEX Twin (Uponor AquaPEX) pipe is available in 1", 1¼", 1½" and 2" sizes.
- Potable HDPE pipe is available in 1¼", 1½", 2", 3" and 4" sizes.

What type of fittings does Ecoflex use?

- Ecoflex Thermal and Potable PEX products up to 2" can use Uponor's proven ProPEX fitting system.
- All sizes of Ecoflex Thermal and Potable PEX can use Uponor's new WIPEX brass compression fittings.
- Ecoflex Potable HDPE products can use any industry-standard SDR11 HDPE fitting method.

What coil length of Ecoflex are available?

Ecoflex comes in standard factory coil lengths of 600' for 1" PEX pipe, 500' for 1¼" PEX pipe and 300' for all other products.

Do I need to buy Ecoflex in standard coil lengths?

No, custom-coil-lengths services are available for shorter and longer coils.

What is the general availability of Ecoflex coils?

Ecoflex Thermal and Potable HDPE products are readily available in standard coil lengths and, in most cases, will ship from the factory within 2 weeks after placing a P.O. Ecoflex Potable PEX products, extra-long coils and made-to-order products will ship within 6 to 8 weeks after placing a P.O.

What kind of services does Uponor provide for the Ecoflex system?

Uponor Technical Services in the United States 888.594.7726 and Canada 888.994.7726 can provide assistance with quotes and designs as well as answer questions regarding the product and solutions.





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