

<p style="text-align: center;">DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT Housing - Federal Housing Commissioner</p> <p>TO: DIRECTORS, SINGLE FAMILY HOCs DIRECTORS, MULTIFAMILY HUBs</p>	<p>Series and Series Number: MATERIALS RELEASE NO: 1269e (Supersedes issue dated January 13, 2009)</p>
	<p>ISSUE DATE February 16, 2016</p>
	<p>REVIEW DATE February 16, 2019</p>
<p>SUBJECT:</p> <ol style="list-style-type: none"> 1. Product AquaPEX™ Crosslinked Polyethylene (PEX) Plastic Pipe and Fittings 2. Name and address of Manufacturer Uponor, Inc. 5925 148th Street West Apple Valley, MN 55124 	

Data on the nonstandard product described herein have been reviewed by the Department of Housing and Urban Development (HUD) and determination has been made that it is considered suitable from a technical standpoint for the use indicated herein. This Release does not purport to establish a comparative quality or value rating for this product as compared to standard products normally used in the same manner.

This Materials Release cannot be used as an indication of endorsement or approval by HUD of the described product, and any statement or representation, however made, indicating such approval or endorsement by HUD is unauthorized. See Code 18, U.S.C. 709.

Any reproduction of this Release must be in its entirety.

USE: The Uponor AquaPEX™ crosslinked polyethylene (PEX) plastic pipe and fittings system is intended for use in potable hot and cold water distribution systems up to a maximum continuous pressure of 160 psi at 73°F and 100 psi at 180°F. It may also be used in irrigation systems, heating and steam condensate lines.

DESCRIPTION:

The Uponor AquaPEX™ water distribution system shall be made from high density polyethylene having a minimum density of 58 lbs/cubic foot. After extrusion, the cross-linked polyethylene shall have a minimum density of 57 lbs/cubic foot. The pipe shall have one standard dimension ratio SDR 9 and the fittings shall have a nominal size from 1/4" to 3". Only fittings recommended by Uponor are acceptable for use with this PEX system.

REQUIREMENTS:

The Uponor AquaPEX™ water distribution system shall comply with the following standards or more recent versions:

ASTM F876-15	"Standard Specification for Crosslinked Polyethylene (PEX) Tubing"
ASTM F877-11	"Standard Specification for Crosslinked Polyethylene (PEX) Plastic Hot- and Cold-Water Distribution Systems"
ASTM F1960-15	"Standard Specification for Cold Expansion Fittings with PEX Reinforcing Rings for Use with Crosslinked Polyethylene (PEX) Tubing."
NSF 14-2015	"Standard for Plastic Piping System Components and Related Materials"
NSF 61-2014a	"Standard for Drinking Water Systems Components-Health Effects"
AWWA C904-06	"Cross-Linked Polyethylene (PEX) Pressure Pipe for Water Service" for 1/2" thru 3" tubing except: <ol style="list-style-type: none">1. The minimum radius of curvature is 6 diameters.2. If the AquaPEX tubing is kinked during installation, a heat gun may be used to repair the kinked portion in accordance with the Wirsbo Installation Handbook.

INSTALLATION:

1. The Uponor AquaPEX™ plastic pipe and fitting system shall be installed according to the manufacturer's instructions described in the Uponor Installation Handbook.
2. Only fittings approved by Uponor shall be used.
3. The PEX plastic pipe shall not be exposed to direct sun light for more than 30 days.

4. Do not install PEX pipe within 6" of any gas appliance vents, or within 12" of any recessed light fixtures.
5. PEX plastic pipe should not be anchored rigidly but allow 3/8" to 1/2" per yard of pipe for thermal expansion.

CERTIFICATION AND IDENTIFICATION:

Uponor certifies that the AquaPEX™ Crosslinked Polyethylene pipe and fittings and systems shall be produced in conformance to this MR, and are in compliance with a validation program at NSF International, Inc., in accordance with the Code of Federal Regulations, 24 CFR 200.935. NSF International, Inc., shall inspect the manufacturer's facility to assure that the quality control procedures are being followed. Four samples of this product shall be selected and tested each year to validate the manufacturer's conformance to the requirements of this MR. Each pipe and fittings certified as conforming to this MR, shall be labeled with the following information:

1. The NSF validation mark.
2. The manufacturer's name.
3. The manufacturer's conformance to this MR.

MANUFACTURING PLANTS:

The product covered under this MR will be produced at the following plant:

Uponor, Inc.
5925 148th Street West
Apple Valley, MN 55124
Contact: Mary Kimlinger
PH: 952-997-4296

WARRANTY:

Uponor warrants the AquaPEX™ crosslinked polyethylene pipe and fittings specifically to the terms of the Uponor, Inc. limited warranty included with this MR.

MANUFACTURER'S RESPONSIBILITIES:

Issuance of this Materials Release (MR) commits the manufacturer to fulfill, as a minimum, the following:

1. Produce, label and certify the material, product or system in strict accordance with the terms of this MR.
2. Provide necessary corrective action in a timely manner for all cases of justified complaint, poor performance or failure reported by HUD.
3. When requested, provide the Office of Manufactured Housing Programs, HUD Headquarters, with a representative list of properties, in which the material, product or system has been used, including complete addresses or descriptions of locations and dates of installation.
4. Inform HUD in advance of changes in production facilities, methods, design of the product, company name, ownership or mailing address.

EVALUATION:

This MR shall be valid for a period of three years from the date of initial issuance or most recent renewal or revision, whichever is later. The holder of this MR shall apply for a renewal or revision 90 days prior to the Review Date printed on this MR. Submittals for renewal or revision shall be sent to:

U. S Department of Housing and Urban Development
Office of Manufactured Housing Programs
451 7th Street, SW, Room 9168
Washington, DC 20410-8000

Appropriate user fee shall be sent to:

U. S. Department of Housing and Urban Development
Miscellaneous Income – Technical Suitability of Products Fees
Bank of America
P. O. Box 198762
Atlanta, GA 30384-8762

The holder of this MR may apply for revision at any time prior to the Review Date. Minor revisions may be in the form of a supplement to the MR.

If the Department determines that a proposed renewal or supplement constitutes a revision, the appropriate User Fee for a revision will need to be submitted in accordance with Code of Federal Regulations 24 CFR 200.934, "User Fee System for the Technical Suitability of Products Program," and current User Fee Schedule.

CANCELLATION:

Failure to apply for a renewal or revision shall constitute a basis for cancellation of the MR. HUD will notify the manufacturer that the MR may be canceled when:

1. conditions under which the document was issued have changed so as to affect production of, or to compromise the integrity of the accepted material, product, or system,
2. the manufacturer has changed its organizational form without notifying HUD, or
3. the manufacturer has not complied with responsibilities it assumed as a condition of HUD's acceptance.

However, before cancellation, HUD will give the manufacturer a written notice of the specific reasons for cancellation, and the opportunity to present views on why the MR should not be canceled. No refund of fees will be made on a canceled document.

This Materials Release is issued solely for the captioned firm, and is not transferable to any person or successor entity.

UPONOR, INC. LIMITED WARRANTY Valid for Uponor AquaPEX-a® Tubing, ProPEX® and Other Select Plumbing Products

This Warranty is Effective For Installations Made After October 15, 2012

Subject to the terms and conditions of this Limited Warranty, Uponor, Inc. ("Uponor") warrants to the owner of the applicable real property that the Uponor products listed below shall be free from defects in materials and workmanship, under normal conditions of use when installed as part of a potable water distribution system.

Unless otherwise specified, this Limited Warranty for the applicable Uponor products shall commence on the date the product was installed ("Commencement Date") and will expire after the following number of years:

- (a) Twenty-Five (25) years for Uponor AquaPEX-a® tubing, Uponor ProPEX® fittings and ProPEX® rings when all are installed in combination with each other;
- (b) Ten (10) years for Uponor AquaPEX-a® tubing when installed in combination with non-Uponor fittings;
- (c) Ten (10) years for Uponor EP valves, EP valveless manifolds and Uponor tub ells, stub ells, and straight stubs;
- (d) Two (2) years for Uponor metal manifolds, Uponor EP manifolds with valves;
- (e) Five (5) years for the Uponor D'MAND® system;
- (f) Two (2) years for all other components of the Uponor ProPEX® fitting system and all other plumbing items listed in Uponor's catalog as of the effective date of this limited warranty.

For purposes of this warranty, the use of Uponor AquaPEX-a® tubing, Uponor ProPEX® fittings and ProPEX® rings in combination with each other shall constitute an Uponor ProPEX® system.

Exclusions From Limited Warranty:

This limited warranty applies **only** if the applicable Uponor products identified above: (a) are selected, configured and installed by a certified licensed plumbing contractor recognized by Uponor as having successfully completed the Uponor AquaPEX® training course and according to the installation instructions provided by Uponor; (b) are not exposed to temperatures and/or pressures that exceed the limitations printed on the warranted Uponor product or in the applicable Uponor installation manual; (c) remain in their originally installed location; (d) are connected to potable water supplies; (e) show no evidence of misuse, tampering, mishandling, neglect, accidental damage, modification or repair without the approval of Uponor; and (f) are installed in accordance with then-applicable building, mechanical, plumbing, electrical and other code requirements; (g) are installed in combination with Uponor AquaPEX-a® tubing unless otherwise specified below.

Without limiting the foregoing, this limited warranty does not apply if the product failure or resulting damage is caused by: (a) faulty installation; (b) components not manufactured or sold by Uponor; (c) exposure to ultra violet light; (d) external physical or chemical conditions, including, but not limited to chemically corrosive or aggressive water conditions; or (e) any abnormal operating conditions.

The use of non-Uponor termination devices such as tub/shower valves, sill cocks, stops and other similar components that attach at the termination or end-point of a run or branch of Uponor AquaPEX-a® tubing does not disqualify the additional parts of the Uponor ProPEX® fitting system from the terms of this Limited Warranty. Only the non-Uponor termination devices themselves are excluded from the Uponor Limited Warranty.

The use of non-Uponor AquaPEX-a® tubing disqualifies any and all parts of the Uponor ProPEX fitting® system from the terms of this Limited Warranty. This exclusion does not include certain circumstances wherein Uponor AquaPEX-a® tubing is installed in combination with CPVC, copper, PPr , or stainless steel pipe risers as may be required in limited residential and commercial plumbing applications. The use of non-Uponor fittings in combination with Uponor ProPEX® fittings disqualifies Uponor ProPEX fittings® from the terms of this Limited Warranty.

Warranty Claim Process (for building owners and homeowners only):

Written notification of an alleged failure of, or defect in, any Uponor part or product identified herein should be sent to Uponor, Attn: Warranty Department, 5925 148th Street West, Apple Valley, Minnesota 55124 or by facsimile to (866) 351-8402, and must be received by Uponor within thirty (30) days after detection of an alleged failure or defect occurring within the applicable warranty period. All products alleged to be defective must be sent to Uponor for inspection and testing for determination of the cause of the alleged failure or defect.

Exclusive Remedies:

If Uponor determines that a product identified herein has failed or is defective within the scope of this limited warranty, Uponor's liability is limited, at the option of Uponor, to: issue a refund of the purchase price paid for, or to repair or replace the defective product.

Notwithstanding anything to the contrary in this limited warranty, if Uponor determines that any damages to the real property in which a defective product was installed were the direct result of a leak or failure caused by a manufacturing defect in an Uponor product covered by this limited warranty and occurring within the first ten (10) years after the applicable Commencement Date or during the applicable limited warranty period, whichever is shorter, and if the claimant took reasonable steps to promptly mitigate (i.e., limit or stop) any damage resulting from such failure, then Uponor may at its discretion, reimburse claimant for the reasonable costs of repairing or replacing such damaged real property, including flooring, drywall, painting, and other real property damaged by the leak or failure. Uponor shall not pay for any other additional costs or expenses, including but not limited to, transportation, relocation, labor, repairs or any other work associated with removing and/or returning failed or defective products, installing replacement products, damage to personal property or damage resulting from mold.

Warranty Claim Dispute Process:

In the event claimant and Uponor are unable to resolve a claim through informal means, the parties shall submit the dispute to the American Arbitration Association or its successor (the "Association") for arbitration, and any arbitration proceedings shall be conducted before a single arbitrator in the Minneapolis, Minnesota metropolitan area. NOTWITHSTANDING THE FOREGOING, NEITHER THE CLAIMANT NOR UPONOR, INC. SHALL BE ENTITLED TO ARBITRATE ANY CLAIMS AS A REPRESENTATIVE OR MEMBER OF A CLASS, AND NEITHER THE CLAIMANT NOR UPONOR SHALL BE ENTITLED TO JOIN OR CONSOLIDATE CLAIMS WITH ANY OTHER PARTIES IN ARBITRATION OR IN LITIGATION BY CLASS ACTION OR OTHERWISE.

Transferability:

This limited warranty may only be assigned by the original owner of the applicable real property and may not be assigned or transferred after the period ending ten (10) years following the Commencement Date.

Miscellaneous:

By the mutual agreement of the parties, it is expressly agreed that this limited warranty and any claims arising from breach of contract, breach of warranty, tort, or any other claim arising from the sale or use of Uponor's products shall be governed and construed under the laws of the State of Minnesota. It is expressly understood that authorized Uponor sales representatives, distributors, and plumbing professionals have no express or implied authority to bind Uponor to any agreement or warranty of any kind without the express written consent of Uponor.

THIS LIMITED WARRANTY IS THE FULL EXTENT OF EXPRESS WARRANTIES PROVIDED BY UPONOR, AND UPONOR HEREBY DISCLAIMS ANY WARRANTY NOT EXPRESSLY PROVIDED HEREIN, INCLUDING, WITHOUT LIMITATION, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO THE PRODUCTS COVERED HEREUNDER.

UPONOR FURTHER DISCLAIMS ANY STATUTORY OR IMPLIED WARRANTY OF HABITABILITY.

EXCEPT AS OTHERWISE EXPRESSLY STATED IN THIS LIMITED WARRANTY, UPONOR FURTHER DISCLAIMS ANY RESPONSIBILITY FOR LOSSES, EXPENSES, INCONVENIENCES, AND SPECIAL, INDIRECT, SECONDARY, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OR RESULTING IN ANY MANNER FROM THE PRODUCTS COVERED HEREUNDER. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

THIS LIMITED WARRANTY GIVES THE CLAIMANT SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.

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