



LISTING INFORMATION OF
Viega - Barrier Tubing
SPEC ID: 32594

Viega, LLC
585 Interlocken Blvd.
Broomfield, CO 80021
United States

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LISTING INFORMATION

Viega Barrier is a cross-linked polyethylene tubing for use in hot and cold water distribution applications. It has a nominal diameter of 5/16 in. to 2 in.

FLAME SPREAD RATINGS

Test Standard	Product Tested	Flame Spread	Smoke Development
ASTM E84	5/16" to 2" Viega Barrier with insulation	<25	<50
CAN/ULC-S102.2	5/16" to 2" Viega Barrier with insulation	<25	<50
CAN/ULC-S102.2	5/16" to 1/2" Viega Barrier without insulation	<25	<50

Insulated product ratings apply only when tubing is field insulated with fiberglass insulation conforming to the following:

- ASTM E84 Listed
- Flame Spread Index of < 25
- Smoke Developed Index of < 50
- Wall thickness – minimum 1/2"
- There shall be no exposed tubing. Tubing may contain fittings which shall also be fully encased in insulation.

FIRE RATINGS

Test Standard	Products Covered	Rating	Design Number
ASTM E119 CAN/ULC-S101 UL 263 NFPA 251 UBC 7-1	5/16" to 2" Viega Barrier	1-Hour	VL/FWDP 60-01
ASTM E119 CAN/ULC-S101 UL 263 NFPA 251 UBC 7-1	5/16" to 2" Viega Barrier	1-Hour	VL/FWDP 60-02
ASTM E119 CAN/ULC-S101 UL 263 NFPA 251 UBC 7-1	5/16" to 2" Viega Barrier	2-Hour	VL/FWDP 120-01
ASTM E814 CAN/ULC-S115	5/16" to 2" Viega Barrier	2-Hour	VL/FWDP 120-02

Attribute	Value
Criteria	CAN / ULC S101 (2007)

Criteria	CAN / ULC S102.2 (2010)
Criteria	ASTM E84 (2012)
Criteria	CAN / ULC S115 (2011)
Criteria	ASTM E814 (2011a)
Criteria	ASTM E119 (2012)
CSI Code	22 11 00 Facility Water Distribution
Intertek Services	Certification
Listed or Inspected	LISTED
Listing Section	BUILDING MATERIALS WITH SURFACE BURNING CHARACTERISTICS
Spec ID	32594

DRAWING INDEX

VL/FWDP 120-01

VL/FWDP 120-02

VL/FWDP 60-01

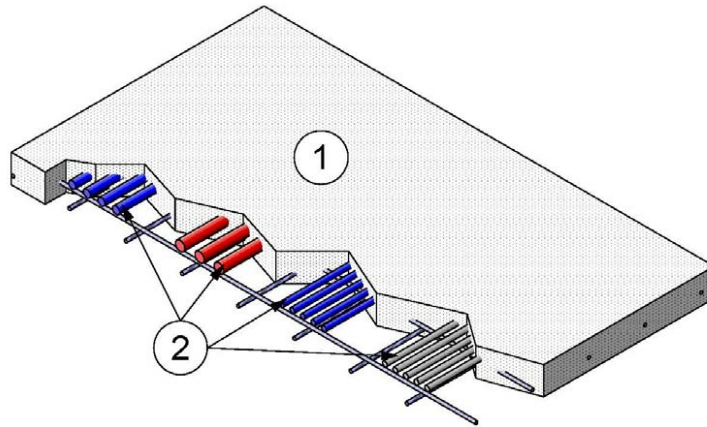
VL/FWDP 60-02

VL/FWDP 120-01



Division 22 – Plumbing
22 11 00 Facility Water Distribution
22 11 13 Facility Water Distribution Piping

Viega LLC
Design No. VL/FWDP 120-01
Floor/Ceiling Assembly
Viega PureFlow System, ViegaPEX Barrier, Viega PureFlow PEX, and Viega FostaPEX
ASTM E119-12, CAN/ULC S101-07, UL 263, NFPA 251, and UBC 7-1
Unrestrained Assembly Rating: 2 Hour
Restrained Assembly Rating: 2 Hour



1. FLOOR/CEILING ASSEMBLY: Use a two hour fire-rated floor/ceiling assembly consisting of min. 6 in. (152 mm) thick normal weight 100-150 pcf (1600-2400 kg/m³) reinforced concrete. Concrete to be reinforced in accordance with Code requirements. Min. concrete cover for positive steel reinforcement is 1-1/2 in. (38 mm).

2. CERTIFIED MANUFACTURER: Viega LLC

CERTIFIED PRODUCT: 3/8 in. to 2 in. (9.5 mm to 51 mm) PEX Tubing

CERTIFIED MODELS: Viega PureFlow System, ViegaPEX Barrier, Viega PureFlow PEX, or Viega FostaPEX

PEX TUBING: Install 3/8 in. through 2 in. (9.5 mm to 51 mm) nominal pipe size PEX tubing. Tubing shall be evenly distributed and tied to the top side of the positive reinforcing

bars. The tubing may penetrate through the top or bottom of the concrete floor/ceiling assembly (Item 1) when used in closed systems with a min. of 10 ft. (3 m) between bottom and top penetrations. The max. density of PEX tubing expressed as a percentage of concrete slab cross sectional area is 14.8%.

3. PEX SLEEVE: (Not Shown, Optional) Install PEX sleeve inside concrete slab. The sleeves should be evenly distributed and tied to the top side of the positive reinforcing bars. Route PEX tubing (Item 2) through PEX sleeves. Sleeve cannot be installed beyond 2 in. out of concrete unless it is encased in fiberglass pipe insulation.

4. BEND SUPPORTS: (Not Shown, Optional) Snap-on bend support sleeves, Models 2850.3US and 2850.2US, can be used in lieu of short radius 90° elbows.

Date Revised: December 7, 2017

Page 1 of 1

Project No. G G103265377

Version: 02 August 2017

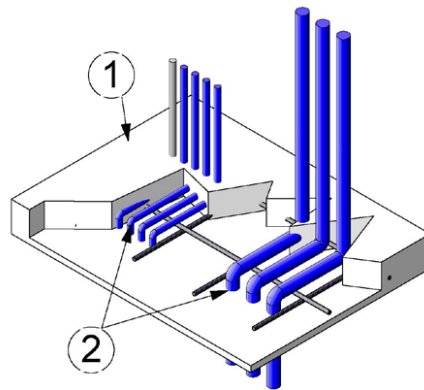
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VL/FWDP 120-02



Division 22 – Plumbing
 22 11 00 Facility Water Distribution
 22 11 13 Facility Water Distribution Piping

Viega LLC
Design No. VL/FWDP 120-02
Floor/Ceiling Assembly
 Viega PureFlow System, ViegaPEX Barrier, Viega PureFlow PEX, and Viega FostaPEX
 ASTM E814-11a and CAN/ULC S115-11
 Pressure Differential 0.01 in. (2.5 Pa) Water Column
F-Rating: 2 Hour
T-Rating: See Chart



T-Rating Chart				
Nominal Pipe Size*		Min. Offset Distance		T-Rating
in.	mm	in.	mm	Min.
2	51	6	152	31
2	51	12	305	36
1-1/2	38	6	152	46
1-1/2	38	12	305	84
1	25	6	152	120

*Note: Pipe sizes not listed are covered by the next largest pipe size listed.

1. FLOOR/CEILING ASSEMBLY: Use a two hour fire-rated floor/ceiling assembly consisting of min. 6 in. (152 mm) thick normal weight 100-150 pcf (1600-2400 kg/m³) reinforced concrete. Concrete to be reinforced in accordance with Code requirements. Min. concrete cover for positive steel reinforcement is 1-1/2 in. (38 mm).

2. CERTIFIED MANUFACTURER: Viega LLC

CERTIFIED PRODUCT: 3/8 in. to 2 in. (9.5 mm to 51 mm) PEX Tubing

CERTIFIED MODELS: Viega PureFlow System, ViegaPEX Barrier, Viega PureFlow PEX, or Viega FostaPEX

PEX TUBING: Install 3/8 in. through 2 in. (9.5 mm to 51 mm) nominal pipe size PEX tubing for use in open or closed systems. Tubing shall be evenly distributed and tied to the top side of the positive reinforcing bars. The tubing penetrates through the top and bottom of the floor/ceiling assembly (Item 1) with a min. offset as described in the T-Rating Chart.

VL/FWDP 120-02 (2 OF 2)



Division 22 – Plumbing
22 11 00 Facility Water Distribution
22 11 13 Facility Water Distribution Piping

3. **PEX SLEEVE:** (Not Shown, Optional) Install PEX sleeve inside concrete slab. The sleeves should be evenly distributed and tied to the top side of the positive reinforcing bars. Route PEX tubing (Item 2) through PEX sleeves. Sleeve cannot be installed beyond 2 in. out of concrete unless it is encased in fiberglass pipe insulation.
4. **BEND SUPPORTS:** (Not Shown, Optional) Snap-on bend support sleeves, Models 2850.3US and 2850.2US, can be used in lieu of short radius 90° elbows.

Date Revised: December 7, 2017

Page 2 of 2

Project No. G103265377

Version: 02 August 2017

SFT-BC-OP-19i

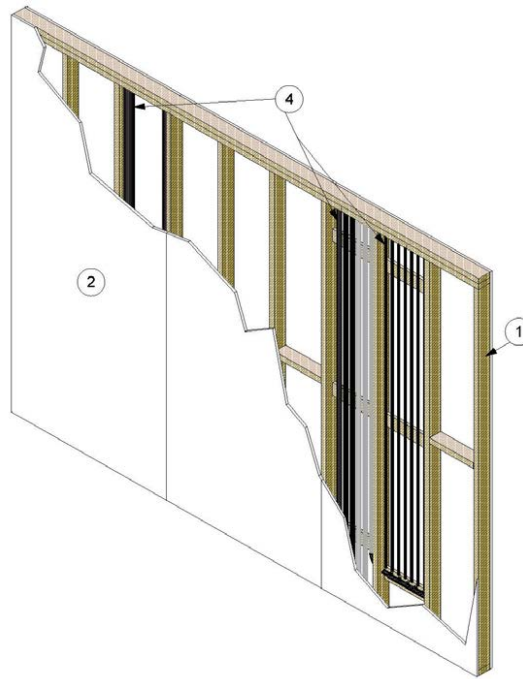
VL/FWDP 60-01



Division 22 – Plumbing
 22 11 00 Facility Water Distribution
 22 11 13 Facility Water Distribution Piping

Viega LLC
Design No. VL/FWDP 60-01
Wall Assembly

Viega PureFlow System, ViegaPEX Barrier, Viega PureFlow PEX, and Viega FostaPEX
ASTM E 119-12, CAN/ULC S101-07, UL 263, NFPA 251, and UBC 7-1
2005 NDS Restricted Load – Max. 78% of full design load per stud
CSA-O86-09 Restricted Load – Max. 76% of full design load per stud
Rating: 1 Hour



- 1. FRAMING:** Install nominal 2 × 4 in. wood studs spaced max. 16 in. on center (oc) between a top plate consisting of two nominal 2 × 4 in. wood studs and one nominal 2 × 4 in. bottom plate. Attach each stud to top and bottom plates using 16d framing nails. Install nominal 2 × 4 in. lumber cut to fit in the stud cavity bracing at mid-height of wall. Install additional bracing max. 42 in. oc in stud cavities with PEX tubing (Item 4) as supports for the PEX tubing.
- 2. GYPSUM BOARD:** Install one layer of nominal 5/8 in. thick Type X gypsum board, oriented vertically. Secure gypsum board to framing (Item 1) using nominal 1-7/8 in. long Type W drywall screws or nominal 1-5/8 in. long cup-head drywall nails spaced nominally 6 in. oc around the perimeter and 8 in. oc around in the field.

Date Revised: December 7, 2017

Page 1 of 2

Project No. G103265377

Version: 02 August 2017

SFT-BC-OP-19I

VL/FWDP 60-01 (2 OF 2)



Division 22 – Plumbing
22 11 00 Facility Water Distribution
22 11 13 Facility Water Distribution Piping

3. JOINT TAPE AND COMPOUND: (Not Shown)
Install vinyl or casein, dry or premixed, joint compound applied to exterior face of gypsum board in two coats to all exposed fastener heads and gypsum board joints. Install min. 2 in. wide paper, plastic, or fiberglass tape embedded in the first layer of compound over joints in gypsum board.

4. CERTIFIED COMPANY: Viega LLC

CERTIFIED PRODUCT: 3/8 in. to 2 in. (9.5 mm to 51 mm) PEX Tubing

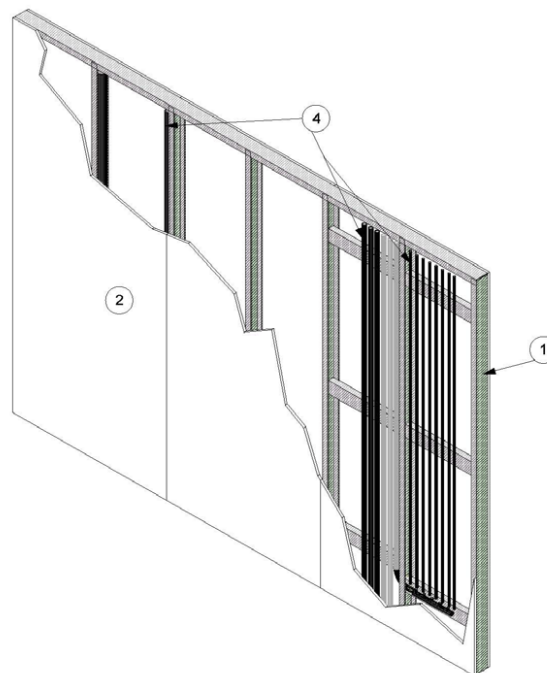
MODELS: Viega PureFlow System, ViegaPEX Barrier, Viega PureFlow PEX, or Viega FostaPEX

PEX TUBING: Install 3/8 in. through 2 in. (9.5 mm to 51 mm) nominal pipe size PEX Tubing. The max. weight of PEX tubing shall be 11 lb. or 1.3 lb. per ft. per stud cavity. Any manifolds or other accessories shall be considered as part of the total weight. Support PEX tubing to framing (Item 1).

VL/FWDP 60-02

Division 22 – Plumbing
22 11 00 Facility Water Distribution
22 11 13 Facility Water Distribution Piping

Viega LLC
Design No. VL/FWDP 60-02
Non-Bearing Wall Assembly
Viega PureFlow System, ViegaPEX Barrier, Viega PureFlow PEX, and Viega FostaPEX
ASTM E 119-12, CAN/ULC S101-07, UL 263, NFPA 251, and UBC 7-1
Rating: 1 Hour



- 1. FRAMING:** Install channel shaped min. 25 GA 3-5/8 in. deep galvanized steel studs cut 3/8 in. shorter than assembly height, spaced max. 24 in. on center (oc) friction fit into a top and bottom channel shaped min. 25 GA 3-5/8 in. deep track. Top and bottom track shall be attached to floor and ceiling with fasteners spaced max. 24 in. oc. Install bracing max. 42 in. oc in stud cavities with PEX tubing (Item 4) as supports for the PEX tubing.
- 2. GYPSUM BOARD:** Install one layer of nominal 5/8 in. thick Type X gypsum board, oriented vertically. Secure gypsum board to framing (Item 1) using nominal 1-5/8 in. long Type S self-tapping drywall screws spaced nominally 6 in. oc around the perimeter and 8 in. oc around in the field.
- 3. JOINT TAPE AND COMPOUND:** (Not Shown) Install vinyl or casein, dry or premixed, joint compound applied to exterior face of gypsum board in two coats to all exposed fastener

Date Revised: December 7, 2017

Page 1 of 2

Project No. G103265377

Version: 02 August 2017

SFT-BC-OP-19I

VL/FWDP 60-02 (2 OF 2)



Division 22 – Plumbing
22 11 00 Facility Water Distribution
22 11 13 Facility Water Distribution Piping

heads and gypsum board joints. Install min. 2 in. wide paper, plastic, or fiberglass tape embedded in the first layer of compound over joints in gypsum board.

4. CERTIFIED COMPANY: Viega LLC

CERTIFIED PRODUCT: 3/8 in. to 2 in. (9.5 mm to 51 mm) PEX Tubing

MODELS: Viega PureFlow System, ViegaPEX Barrier, Viega PureFlow PEX, or Viega FostaPEX

PEX TUBING: Install 3/8 in. through 2 in. (9.5 mm to 51 mm) nominal pipe size PEX Tubing. The max. weight of PEX tubing shall be 11 lb. or 1.3 lb. per ft. per stud cavity. Any manifolds or other accessories shall be considered as part of the total weight. Support PEX tubing to framing (Item 1).