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LISTING INFORMATION OF  
**Viega® Climate Mat®**  
SPEC ID: 30017

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

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## LISTING INFORMATION

Cross-linked polyethylene tubing assembled into pre-spaced groupings for installation into concrete floors.

### RATINGS

ASTM E84 SURFACE BURNING CHARACTERISTICS		
Product Tested	Flame Spread Index	Smoke Developed Index
1/2" to 5/8" Viega Climate® Mat® with insulation*	<25	<50

CAN/ULC S102.2-10 SURFACE BURNING CHARACTERISTICS		
Product Tested	Flame Spread Index	Smoke Developed Index
1/2" to 5/8" Viega Climate® Mat® without insulation*	<25	<50
1/2" to 5/8" Viega Climate® Mat® with insulation*	<25	<50

\* Testing conducted on tubing only with spacer clips with or with insulation as specified.

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 Resistance Ratings		
Products Covered	Design Listing	Rating
1/2" to 5/8" Viega Climate® Mat®	VL/FWDP 120-03	Assembly Rating – 120 min

### IDENTIFICATION

All products are identified by a label or marking bearing the product description, test standard, rating and the Warnock Hersey Certification Mark.

Attribute	Value
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Criteria	CAN / ULC S101 (2007)
Criteria	CAN / ULC S102.2 (2010)
Criteria	ASTM E84 (2012)
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	30017
Test Original Issue Date	December 30, 2011
Test Type	Fire Resistance

# DRAWING INDEX

VL/FWDP 120-03

# VL/FWDP 120-03

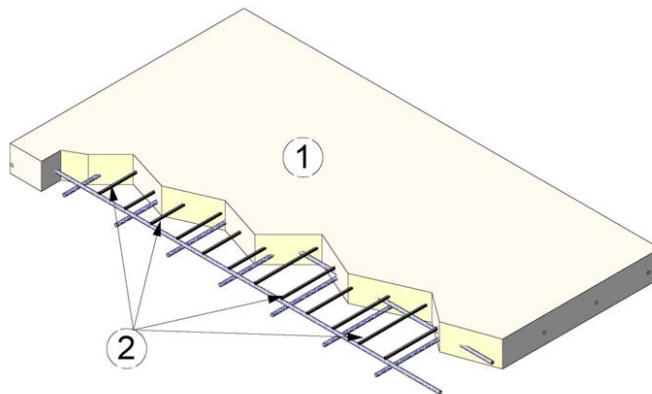
Division 22 Plumbing  
 22 11 00 Facility Water Distribution  
 22 11 13 Facility Water Distribution Piping

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Viega LLC  
 VL/FWDP 120-03  
 Floor/Ceiling Assembly  
 Viega® Climate Mat®  
 ASTM E 119-12, CAN/ULC S101-07, UL 263, NFPA 251 and UBC 7-1  
 Unrestrained Assembly Rating 2 Hours  
 Restrained Assembly Rating 2 Hours

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1. FLOOR/CEILING ASSEMBLY: Use a two-hour fire-rated floor/ceiling assembly consisting of minimum 6 in. (152 mm) thick normal weight 100-150 pcf (1600-2400 kg/m<sup>3</sup>) reinforced concrete. Concrete to be reinforced in accordance with Code Requirements. Minimum concrete cover for positive steel reinforcement is 1-1/2 in (38 mm).

reinforcing bars per manufacturer's instructions. The tubing may penetrate through the top or bottom of the concrete floor/ceiling assembly (Item 1) when used in closed systems with a minimum of 10 ft (3 m) between bottom and top penetrations. The maximum density of PEX tubing expressed as a percentage of the concrete slab cross sectional area is 14.8%. Shipping header to be removed after installation is complete.

2. CERTIFIED COMPANY: Viega LLC  
 CERTIFIED PRODUCT: 1/2 in. to 5/8 in. (12.7 mm to 15.9 mm) PEX Tubing bundles  
 MODEL: Viega® Climate Mat®  
 PEX TUBING - Install 1/2 in. through 5/8 in. (12.7 mm to 15.9 mm) nominal pipe size PEX Tubing. Tubing shall be evenly distributed based on pre installed spacer based on the manufacturer's specified heating design. Tubing shall be attached to the top side of the positive

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