



commerce.wi.gov

SAFETY AND BUILDINGS DIVISION
 Plumbing Product Review
 P.O. Box 2658
 Madison, Wisconsin 53701-2658
TTY: Contact Through Relay
Jim Doyle, Governor
Richard J. Leinenkugel, Secretary

December 10, 2008

NOVEON,INC.
 TEMP RITE
 MIKE LIPKE
 2177 VIOLET LANE
 NEW BRIGHTON MN 55112

NOVEON,INC.
 TEMP RITE
 DONALD TOWNLEY
 9911 BRECKVILLE RD.
 CLEVELAND OH 44141

Re: Description: CPVC PIPE SIZING METHOD, ALTERNATE PLUMBING SYSTEM
 Manufacturer: NOVEON,INC.
 Product Name: FLOWGUARD GOLD PIPE AND FITTINGS
 Model Number(s): 1/2", 1", 1 1/4", 1 1/2" AND 2"
 Product File No: 20080559

The specifications and/or plans for this plumbing product have been reviewed and determined to be in compliance with chapters Comm 82 through 84, Wisconsin Administrative Code, and Chapters 145 and 160, Wisconsin Statutes.

The Department hereby issues an alternate approval to s. Comm 82.40 (7) (e) based on the Wisconsin Statutes and the Wisconsin Administrative Code. This approval is valid until the end of December 2012.

This alternate approval is contingent upon compliance with the following stipulation(s):

- | Pressure Loss Per 100 ft. of Length | Pipe Diameter (in.) | | | | | | | | |
|-------------------------------------|---------------------|----|-----|------|-----|------|------|-----|------|
| | 1/2 | | | 3/4 | | | 1 | | |
| | WSFU | | | WSFU | | | WSFU | | |
| GPM | FM | FT | GPM | FM | FT | GPM | FM | FT | |
| 0.5 | 0.5 | 0 | 0.5 | 1.5 | 0 | 1.5 | 3.0 | 0 | 3.0 |
| 1.0 | 0.5 | 0 | 0.5 | 2.0 | 0 | 2.0 | 4.0 | 0 | 4.0 |
| 2.0 | 1.0 | 0 | 1.0 | 3.0 | 0 | 3.0 | 6.0 | 0 | 7.0 |
| 3.0 | 1.5 | 0 | 1.5 | 4.0 | 0 | 4.0 | 8.0 | 0 | 10.0 |
| 4.0 | 1.5 | 0 | 1.5 | 4.5 | 0 | 5.0 | 9.0 | 0 | 11.5 |
| 5.0 | 2.0 | 0 | 2.0 | 5.0 | 0 | 6.0 | 10.5 | 4.0 | 14.0 |
| 6.0 | 2.0 | 0 | 2.0 | 6.0 | 0 | 7.0 | 11.5 | 4.0 | 15.5 |
| 7.0 | 2.0 | 0 | 2.0 | 6.5 | 0 | 8.0 | 12.5 | 4.5 | 17.5 |
| 8.0 | 2.5 | 0 | 2.5 | 7.0 | 0 | 9.0 | 13.5 | 4.5 | 19.0 |
| 9.0 | 2.5 | 0 | 2.5 | 7.0 | 0 | 9.0 | 14.5 | 4.5 | 20.5 |
| 10.0 | 2.5 | 0 | 2.5 | 7.5 | 0 | 9.5 | 15.0 | 5.0 | 21.5 |
| 11.0 | 3.0 | 0 | 3.0 | 8.0 | 0 | 10.0 | 16.0 | 5.0 | 23.0 |
| 13.0 | 3.0 | 0 | 3.0 | 9.0 | 0 | 11.5 | 17.5 | 5.5 | 25.5 |
| 14.0 | 3.0 | 0 | 3.0 | 9.5 | 0 | 12.5 | 18.0 | 6.0 | 26.5 |
| 15.0 | 3.5 | 0 | 3.5 | 9.5 | 0 | 12.5 | 19.0 | 6.0 | 28.0 |
| 16.0 | 3.5 | 0 | 3.5 | 10.0 | 4.0 | 13.0 | 19.5 | 6.5 | 29.0 |
| 17.0 | 3.5 | 0 | 3.5 | 10.5 | 4.0 | 14.0 | 20.5 | 6.5 | 31.0 |
| 18.0 | 4.0 | 0 | 4.0 | 10.5 | 4.0 | 14.0 | | | NP |
| 19.0 | 4.0 | 0 | 4.0 | 11.0 | 4.0 | 15.0 | | | |
| 20.0 | 4.0 | 0 | 4.0 | 11.5 | 4.0 | 15.5 | | | |
| 21.0 | 4.0 | 0 | 4.0 | 11.5 | 4.0 | 15.5 | | | |
| 22.0 | 4.0 | 0 | 4.0 | 12.0 | 4.0 | 16.5 | | | |
| 23.0 | 4.5 | 0 | 5.0 | 12.0 | 4.0 | 16.5 | | | |
| 24.0 | 4.5 | 0 | 5.0 | 12.5 | 4.5 | 17.5 | | | |
| 25.0 | 4.5 | 0 | 5.0 | | | NP | | | |
| 26.0 | 4.5 | 0 | 5.0 | | | | | | |
| 27.0 | 4.5 | 0 | 5.0 | | | | | | |
| 28.0 | 5.0 | 0 | 6.0 | | | | | | |
| 29.0 | 5.0 | 0 | 6.0 | | | | | | |
| 30.0 | 5.0 | 0 | 6.0 | | | | | | |
| 31.0 | 5.0 | 0 | 6.0 | | | | | | |
| 32.0 | 5.0 | 0 | 6.0 | | | | | | |
| 33.0 | 5.5 | 0 | 6.5 | | | | | | |

| Pressure Loss Per 100 ft. of Length | Pipe Diameter (in.) | | | | | | | | |
|--|---------------------|------|------|-------|------|-------|------|-------|-------|
| | 1 1/4 | | | 1 1/2 | | | 2 | | |
| | WSFU | | | WSFU | | | WSFU | | |
| | GPM | FM | FT | GPM | FM | FT | GPM | FM | FT |
| 0.5 | 5.0 | 0 | 6.0 | 8.0 | 0 | 10.0 | 16.0 | 5.0 | 23.0 |
| 1.0 | 7.5 | 0 | 9.5 | 11.5 | 4.0 | 15.5 | 23.0 | 7.5 | 37.0 |
| 2.0 | 10.5 | 4.0 | 14.0 | 16.5 | 5.5 | 24.0 | 34.0 | 18.5 | 66.0 |
| 3.0 | 13.5 | 4.5 | 19.0 | 21.0 | 7.0 | 32.0 | 42.0 | 33.0 | 100.0 |
| 4.0 | 15.5 | 5.0 | 22.5 | 24.0 | 8.0 | 40.0 | 50.0 | 48.0 | 128.0 |
| 5.0 | 17.5 | 5.5 | 25.5 | 27.0 | 10.0 | 47.0 | 56.0 | 65.0 | 155.0 |
| 6.0 | 19.5 | 6.5 | 29.0 | 30.0 | 13.5 | 55.0 | 62.0 | 80.0 | 185.0 |
| 7.0 | 21.5 | 7.0 | 33.0 | 33.0 | 17.5 | 63.0 | 67.0 | 96.0 | 210.0 |
| 8.0 | 23.0 | 7.5 | 37.0 | 35.0 | 20.0 | 70.0 | 72.0 | 116.0 | 235.0 |
| 9.0 | 24.0 | 8.0 | 40.0 | 38.0 | 26.0 | 80.0 | 74.0 | 124.0 | 245.0 |
| 10.0 | 26.0 | 9.0 | 45.0 | 40.0 | 30.0 | 86.0 | | NP | |
| 11.0 | 27.0 | 10.0 | 47.0 | 42.0 | 33.0 | 100.0 | | | |
| 12.0 | 28.0 | 11.0 | 50.0 | 43.0 | 35.0 | 104.0 | | | |
| 13.0 | 30.0 | 13.5 | 55.0 | | NP | | | | |
| 14.0 | 30.0 | 14.5 | 57.0 | | | | | | |
| 15.0 | | NP | | | | | | | |

GPM = gallons per minute

WSFU = water supply fixture units

FM = predominately flushometer type water closets or siphon jet urinals

FT = predominately flush tank type water closets or washdown urinals

NP = not permitted, velocity exceeds 10 feet per second

Note 1: round the calculated pressure loss due to friction to the next higher number shown.

Note 2: Comm 82.40(7)(f) and 82.40(7)(g) specifies the minimum sizes for water distribution piping.

- These pipe products must conform to ASTM Standard D2846 and/or CSA Standard B137.6.

The fittings used with these pipe products must conform to ASTM F437 and/or ASTM F438 and/or ASTM F439

- These pipe products must be labeled with the following minimum information at intervals not to exceed 5.0 ft.:

1. The manufacturer's name or registered trademark;
2. The standard designation (i.e. ASTM 2846 and/or CSA B137.6);
3. The seal or mark of the certifying agency, for potable water applications the designation "pw" must also appear along with the seal or mark of the certifying agency;
4. The material designation (i.e. CPVC 4120);
5. The pressure rating at 180 degrees Fahrenheit; and
6. The nominal pipe size.

The fittings used with these pipe products must be labeled with the following minimum information:

- a. The manufacturer's name or registered trademark;
- b. The seal or mark of the certifying agency, for potable water applications the designation "pw" must also appear along with the seal or mark of the certifying agency;
- c. The standard designation (i.e. ASTM 2846 and/or CSA B137.6); and
- d. The material designation (i.e. CPVC 4120).

MIKE LIPKE
NOVEON, INC.
20080559
Page 3
December 10, 2008

- These pipe products may be installed for the following water uses:
 1. Water distribution piping within dialysis systems, only.
- The water velocity through these piping products may not exceed 10 feet per second (fps).
- Approval is issued for these piping products because the design of these piping products meet with the intent of s. Comm 82.40 (7) (e) of the Wis. Adm. Code that limits the maximum velocity of water within the water distribution system to 8.0 feet per second (fps). The intent of the code is met because these piping products are stable at an increased velocity of 10.0 fps.
- The calculated load on any portion of a water distribution system constructed of these piping products may not exceed the limits specified in Table 1 of 1 displayed on page 2 of 3 of this letter.

This approval supersedes the approval issued on February 13, 2003 under product file number 20030007.

This approval letter shall be incorporated with your previously approved plans and/or specifications approved under product file number 20030007.

The department is in no way endorsing this product or any advertising, and is not responsible for any situation which may result from its use.

Sincerely,

Jerry Thompson
Plumbing Product Reviewer
Phone: 608-266-6742
Fax: 608-267-9566
E-mail: Jerry.Thompson@wi.gov