

SAFETY AND BUILDINGS DIVISION Plumbing Product Review P.O. Box 2658 Madison, Wisconsin 53701-2658 TTY: Contact Through Relay

> Scott Walker, Governor Dave Ross, Secretary

July 13, 2016

CT PIPING SOLUTIONS INCORPORATED DONNA STOUGHTON PO BOX 516 TITUSVILLE PA 16354 PESTAN N.A. MARKO RADOVANOVIC 461 ESTRALITA DRIVE VISTA CA 92084

Re: Description:

PIPES AND FITTINGS, POLYPROPYLENE

Manufacturer:

PESTAN N.A.

Product Name:

(trans id 2710998) PESTAN POLYPROPYLENE PIPE AND FITTINGS

Model Number(s): SEE ATTACHED

Product File No: 20160154

The specifications and/or plans for this plumbing product have been reviewed and determined to be in compliance with chapters SPS 382 through 384, Wisconsin Administrative Code, and Chapters 145 and 160, Wisconsin Statutes.

The Department hereby issues an alternate approval to s. SPS 384.40 based on the Wisconsin Statutes and the Wisconsin Administrative Code. This approval is valid until the end of July 2021.

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

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

- This piping system may be used for the following:
 - Water distribution piping.
 - 2. Water services and private water mains.
- This piping system shall be installed in strict accordance with the manufacturer's published instructions and chs. SPS 382 and 384 Wis. Adm. Code. If there is a conflict, chs. SPS 382 and 384 Wis. Adm. Code shall take precedence.
- This piping system shall be sized in accordance with the attached tables.
- This piping system shall be sized such that the water velocity does not exceed 8 feet per second (8 fps).

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

Environmental Engineer - Plumbing Product Reviewer

Depart of Safety and Professional Services

Division of Industry Services Bureau of Technical Services (608) 267-1401 Phone

(608) 267-9723 Fax

glen.schlueter@wi.gov E-mail

SBD-10564-E (N.10/97) File Ref: 16015405.DOC

MAXIMUM ALLOWABLE LOAD FOR PESTANS POLYPROPYLENE PP-R(CT) PIPE (C=150), SDR7.4

Pressure Loss	1/2" (20 mn	1)	3/4" (25 mm))
Due to Friction	GPM		FU	GPM	WS	FU
(in psi per 100 ft of length)		FM	FT		FM	FT
0.5	0.9	ng Vistalia Vinneria i	1	1.5	eritant Mandalian	1.5
1	1.2		1.5	2.2		2
2	1.8		2	3.2		3
3	2.2		2	4.0		4
4	2.6		2.5	4.7		5.5
5	3,0		3	5.3		6.5
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7	3.5		3.5	6.4		8
8	3.8		4	6.9		9
9	4.1		4	7.3		9.5
10	4.3		4.5	7.7		9.5
11	4.5		5	8.1		10
12	4.7		5.5	8.5		. 11
13	4.9		6	8.9		12
14	5.1		6	9.3		12
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NOTE: WSFU means water supply fixture units.

GPM means gallons per minute.
FM means predominately flushometer type water closets or syphon jet urinals.

MAXIMUM ALLOWABLE LOAD FOR PESTANS POLYPROPYLENE PP-R(CT) PIPE (C=150), SDR9

Pressure	1" (32 mm)	11/4" (40 mm)			11/2"	' (50 m	m)	2"	1)	
Loss Due to	GPM		SFU	GPM		SFU	GPM		SFU		GPM WSFU	
Friction (in	-								<u> </u>			1
psi per 100 ft		FM	FT		FM	FT		FM	FT		FM	FT
of length)						}						
0.5	3.4		3.5	6.4		7.8	11.3	4	15.5	21.6	7	34
1	5.1		6	9.2		12	16.7	5.5	24.6	30.7	14.5	56.8
2	7.4		9.4	13.5	4.5	19.2	24.3	8	40.8	44.5	38.2	108.3
3	9.2		12	16.8	5.5	24.7	30.3	14	55.8	55.5	64	152.5
4	10.8	4	14.7	19.5	6.5	29.2	35.3	21	71	65.1	90	200
5	12.2	4.5	17	22.1	7.5	35.3	39.7	30	85.7	73.4	122	242
6	13.5	5	19.2	24.3	8	40.8	43.9	37	106.3			
7	14.6	5	21	26.4	9.5	46					•	***************************************
8	15.7	5	22,8	28.4	12	51						
9	16.8	5.5	24.7									
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Pressure	21/	2" (75 m	ım)	3"	(90 mr	n)	4	" (125 mr	n)	6	" (160 mr	n)
Loss Due	GPM	WS	FU	GPM	WSFU		GPM	WSFU		GPM		FU
to Friction (in psi per 100 ft of length)		FM	FT		FM	FT		FM	FT		FM	FT
0.5	33,2	18	64	54	60	145	128	412.5	516.7	256	1398	1398
1	48.9	46.5	124	78.5	141	267.5	187	829	852.9	361	2370.4	2370.4
2	71.0	112	230	114.6	331	448	274	1564.8	1564.8			
3	88.1	184.5	315.5	142.6	507	598						
4	103.2	262	391									
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NOTE: WSFU means water supply fixture units.

GPM means gallons per minute.

MAXIMUM ALLOWABLE LOAD FOR PESTANS POLYPROPYLENE PP-R(CT) PIPE (C=150), SDR9 CON'T

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Pressure	8	" (200 mm	1)	10"	(250 mm	1)
Loss Due to	GPM	WS	FU	GPM	FU	
Friction (in			[<u> </u>	
psi per 100 ft		FM	FT		FM	FT
of length)						
0.5	440	3193.5	3193.5	790	10000	10000
1	651	6000	6000	1170	20804	20804
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NOTE: WSFU means water supply fixture units.

GPM means gallons per minute.

MAXIMUM ALLOWABLE LOAD FOR PESTANS POLYPROPYLENE PP-R(CT) PIPE (C=150), SDR11

Pressure Loss	1" (32 mm)	11/4"	(40 mn	1)	11/2"	(50 mm	1)	2" (6	3 mm)
Due to	GPM		ŠFU	GPM	~	FU	GPM		FU	GPM		SFU
Friction (in			[
psi per 100 ft		FM	FT		FM	FT		FM	FT		FM	FT
of length)	Santi Santi de la compania	18) (4) (4) (6) (6) (7) (6) (7)										
0.5	4.1		4	7.3		9.5	13.2	4.5	19	24.2	8	40
1	6.0		7	10.6	4	14	19.2	6.5	29	35.2	20	70
2	8.7		11	15.4	5	22.5	27.9	11	50	51.2	50	133
3	10.8	4	14.5	19.2	6.5	28	34.7	20	69	63.8	86	194
4	12.6	4.5	17.5	22.5	7.5	36	40.5	30	88	74.5	126	248
5	14.2	5	20	25.3	8.5	43	45.7	40	114			
6	15.7	5	23.5	28.0	11	50	50.5	50	130	Anna sing page 1975 page 1).//www.is.vert.ee/2.4/w	Herritoria servicias
7	17.1	5.5	25	30.4	14	56						
8	18.4	6	27.5									
9	19.6	6.5	29									
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Pressure	21/2" (75 mm)			3" (S	90 mm)		4" (125 mm)	6" (160 mm	1)
Loss Due to	GPM	WS	FU	GPM	WS	FU	GPM	WS	FU	GPM	WSFU	
Friction (in psi per 100 ft of length)		FM	FT		FM	FT		FM	FT		FM	FT
0.5	38.6	27	82	62.3	81	186	147.9	539	627	283.1	1649	1649
1	56.2	66	156	90.6	194	328	215.1	1055	1055	411.8	2872	1649
2	81.8	155	284	131.8	436	538	312.8	1924	1924			
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NOTE: WSFU means water supply fixture units.

GPM means gallons per minute.

MAXIMUM ALLOWABLE LOAD FOR PESTANS POLYPROPYLENE PP-R(CT) PIPE (C=150), SDR11 CON'T

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Pressure	8" (200 mm	1)	10"	(250 mm	1)
Loss Due to	GPM		FU	GPM		FU
Friction (in						
psi per 100 ft		FM	FT	İ	FM	FT
of length)		İ				
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NOTE: WSFU means water supply fixture units.

GPM means gallons per minute.

MAXIMUM ALLOWABLE LOAD FOR PESTANS POLYPROPYLENE PP-R(CT) PIPE (C=150), SDR17.6

Loss Due to Friction (in psi per 100 ft of length) FM	Pressure	4"	(125 m		6" (160 mm) 8" (200 mm)					10	!! (250		12" (215 mm)			
Due to Friction (in psi per 100 ft of length) FM FT FM FM		GPM			GPM									CDM WEE		III)
Friction (in psi per 100		GIWI	77.	1	GIW	VV	oru -	GPW	W :)FU	GPM	W S	J.	GPM	Wa	ru
0.5 183.3 800 831 350.8 2278 2278 631.2 5620 5620 1136.8 20153 2085.7 31000 31 1 266.1 1492 1492 509.3 3828 3828 915.2 16000 16000 6000	Friction (in psi per 100 ft of		FM	FT		FM	FT		FM	FT	77444444	FM	FT		FM	FT
1 266.1 1492 1492 509.3 3828 3828 915.2 16000 16000 2 386.8 2609 2609 3828 3828 915.2 16000 16000 3 4 4 4 4 4 4 4 4 4 4 5 5 5 5 5 5 5 5 6 7 7 8 8 9		and organization	and the second s	and the second second	es (concession)	111125000000000000000000000000000000000	S. L. Company S. C. Company S. C. Company S. C. Company S. C. Company S. C. Company S. C. Company S. C. Company	18868 gant transmit	erost estera singuistre si sindi				Anne de la constante de la con			and make a control of the control of
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NOTE: WSFU means water supply fixture units.

GPM means gallons per minute.