Submittal Data Sheet

SYSTEM 15° DWV SYSTEM XFR° DWV DRAIN-GUARD" DWV MJ GREY" DWV



Project:	
Engineer:	
Contractor:	
Submitted by	
Submitted by:	Date
Approved by:	Date
Order No:	2-1-
Specification:	Date

< STANDARDS >

System 15®



CSA B181.2



CAN/ULC S102.2

System XFR®



B181.2



CAN/ULC S102.2

Drain-Guard™ Double Containment

Depending on your application, Drain-Guard meets the same requirements of System 15 and System XFR

MJ Grey™ Mechanical Couplings Used with System 15 and/or System XFR



CSA B602



introduction

PVC is the most frequently specified of all thermoplastic piping materials. It has been used successfully for over 60 years. PVC is characterized by distinctive physical properties, and is resistant to corrosion and chemical attack by acids, alkalis, salt solutions and many other chemicals.

PRODUCT SIZES

System 15® System XFR®	1-1/2" - 24" (40mm - 600mm) 1-1/2" - 12" (40mm - 300mm)
Drain-Guard™	Depending on your application, Drain-Guard is a double containment piping system using System 15 and or System XFR as its primary components.
	Carrier: $1-1/2$ " -8 " (40 mm -200 mm Containment: 4 " -12 " (100 mm -300 mm) (Larger sizes available upon request)
MJ Grey™	8" - 12" (200mm - 300mm)

Products manufactured by/for IPEX Inc.

Canada: Website: www.ipexinc.com

Toll Free: 866-473-9462



Product Data Sheet

PRODUCT INTRODUCTION

System 15®, System XFR® and Drain-Guard™ by IPEX are compatible product lines designed for use in Drain, Waste and Vent (DWV) applications for buildings designated as noncombustible construction.

While both thermoplastic systems meet the demanding Flame Spread Rating requirements for noncombustible construction, System XFR also meets the Smoke Developed Classification requirements for installation in high-rise buildings and air plenum spaces.

System 15®

System 15 DWV is certified to CSA B181.2, made to Schedule 40 thickness and exhibits a Flame Spread Rating of not greater than 25 as per ULC S102.2 test methods. With some restrictions, System 15 is permitted for use in many commercial DWV applications.

System 15® vs ABS

System 15 is a premium choice for DWV piping versus either ABS solid wall or cell core pipe. System 15 will provide designers and building owners with 40% greater tensile strength, 40% lower expansion contraction movement, greater chemical resistance, less noise generation and superior fire resistance than ABS.

System XFR®

System XFR DWV is also certified to CSA B181.2 and made to Schedule 40 thickness. System XFR is listed to ULC S102.2 to exhibit a Flame Spread Rating of not greater than 25 as well as a Smoke Developed Classification of not greater than 50. Having this makes System XFR permissible for use in High-Rise Buildings (as defined in NBC section 3.2.6) and Air Plenums (section 3.6.4.3).

Drain-Guard™ Double Containment

Depending on your application, Drain-Guard is a double containment piping system using System 15 and or System XFR as its primary components. The many performance benefits of System 15 and System XFR are enhanced by this dual pipe concept, including excellent thermal properties, improved flow, longevity and durability, and the security of meeting all code requirements for noncombustible buildings.

Drain-Guard piping systems provide safe transport of sanitary or storm drainage in critical areas. Should a leak occur, people, equipment and valuable property will be protected from possible harm.

Contact IPEX Inc. for product availability and pricing for a customized solution on your project.

MJ Grey™ Mechanical Couplings

MJ Grey couplings are a mechanical joint assembly suitable for use on IPEX System 15 or System XFR DWV piping sizes 8" through 12", are certified to CSA B602 and are listed to ULC S102.2 to exhibit a Flame/Smoke rating of 25/50.

Products manufactured by/for IPEX Inc.



Material Description

DESIGN AND INSTALLATION

The design and installation of PVC systems shall be performed in accordance with the recommendations detailed in the Handling and Installation section of this Submittal Data Sheet, local and national regulations where applicable.

To ensure the full integrity of the completed system, all components shall be supplied by IPEX.

VISUAL ID

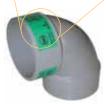
From a distance, there are some differences in appearance between System 15 and System XFR to help with their identification.

The photo below shows the position of one of two labels on System XFR fittings and a close-up of information printed on the label.

Description	System 15	System XFR
Colour	Light grey	Dark grey
Pipe Print Line	Black	Green
Fitting Labels	White	Green







MJ Grey couplings can be easily differentiated from standard cast iron couplings by noting that the rubber interior sleeve is grey in colour (versus the traditional black colour) and exterior identification labels showing the System XFR trade name and the Flame and Smoke values as per ULC S102.2.

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Dimensions and Weights

Pipe Dimensions

The physical dimensions and tolerances of System 15 and System XFR pipe and fittings meet the requirements of CSA B181.2.

System15® & System XFR® Pipe Dimensions

Diameter (in.)	Avg. Outside Diameter (in.)	Impact Resistance ft.lb at 0°C
1-1/2	1.9	52
2	2.4	66
3	3.5	85
4	4.5	100
6	6.6	100
8	8.6	130
10	10.8	140
12	12.8	150
14	14.0	165
16	16.0	175
18	18.0	200
20	20.0	220
24	24.0	220

NOTES:

- System XFR is only available up to 12" diameter
- System XFR is made in 12 foot lengths only for all sizes
- System 15 pipe lengths of 12 foot are plain end while 20 foot lengths of pipe are solvent bell ended
- System 15 24" diameter pipe is not ULC Listed for a Flame Spread Rating

Pipe Weight

Weight differences between various materials can influence a project significantly. During handling and installation, heavier piping products may incur additional costs for the extra manpower and equipment. Other effects of heavier systems may include reduced daily production levels, and impact on worker safety and fatigue.

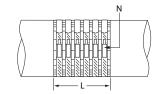
The table below compares the weights of three more commonly specified DWV piping materials.

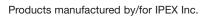
Weight Comparison

Size	System 15 [®] and System XFR [®]		Cast	Iron
(in.)	(lb/ft)	(kg/m)	(lb/ft)	(kg/m)
1-1/2	0.4	0.5	2.7	4.0
2	0.5	0.7	3.7	5.5
3	1.0	1.5	5.0	7.5
4	1.5	2.2	7.0	10.4
6	2.6	3.8	11.5	17.1
8	3.8	5.7	16.0	23.8
10	5.4	8.1	25.5	38.0
12	7.2	10.7	30.0	44.7
14	8.5	12.7	-	-
15	-	-	52.5	78.2
16	11.2	16.6	-	-
18	14.1	21.0	-	-
20	16.5	24.6	_	_
24	23.0	34.3	-	-

MJ Grey™ Dimensions

Coupling Size (inches)	Length (L) (inches)	N Number of Clamps
8	6.0	6
10	6.0	6
12	6.0	6





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Product Availability

Dimension		Product
inches	inches mm Co	

Dimension		Product	
inches	mm	Code	

System 15 DWV Pipe			
	1-1/2	40	010001
	2	50	010002
	3	75	010003
Plain End	4	100	010004
12 foot lengths	6	150	010006
	8	200	010087
	10	250	010088
	12	300	010089
	* 4	100	010016
	* 6	150	010007
	8	200	010008
Bell End	10	250	010010
20 foot lengths	12	300	010012
	14	350	010031
	16	400	010032
	18	450	010034
	20	500	010035
	24	600	010036
	* Sizes 4" and 6" b	ov 20 ft. System	15 pipe sold in

Western Canada only.

Line Cleanout H x H x Gasket Plug



1-1/2	40	026040
2	50	026041
3	75	026103
4	100	026104
4 x 3 x 4	100 x 75 x 100	026105
6	150	026161

Line Cleanout	Sp x Sp x Thre	aded Plug	MJ GREY
	8	200	226953

Plug Cleanout MPT with Gasket



1-1/2	40	026401
2	50	026402
3	75	026403
4	100	026404
6	150	026405

Fitting Cleanout Sp x FPT



026046
026047
026048
026050

Dimension **Product** Code inches

Fitting Cleanout Sp x Gasket Threaded Plug



1-1/2	40	026345
2	50	026346
3	75	026347
4	100	026348
6	150	026349
8	200	026301

Tube End Cleanout H x Gasket Plug



	_	
1-1/2	40	026291
2	50	026298
3	75	026299
4	100	026300

Sanitary Tee H x H x H



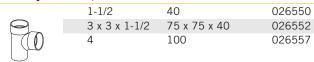
11 X 11 X 11		
1-1/2	40	026081
2	50	026082
2 x 1-1/2 x 1-1/2	50 x 40 x 40	026058
2 x 1-1/2 x 2	50 x 40 x 50	026057
2 x 2 x 1-1/2	50 x 50 x 40	026056
3	75	026083
3 x 3 x 1-1/2	75 x 75 x 40	026061
3 x 3 x 2	75 x 75 x 50	026060
4	100	026084
4 x 4 x 2	100 x 100 x 50	026064
4 x 4 x 3	100 x 100 x 75	026066
6	150	026377
6 x 6 x 4	150 x 150 x 100	026385
8	200	026810
8 x 4	200 x 100	026808
8 x 6	200 x 150	026809
10	250	026814
10 x 4	250 x 100	026811
10 x 6	250 x 150	026812
10 x 8	250 x 200	026813
12	300	026819
12 x 4	300 x 100	026815
12 x 6	300 x 150	026816
12 x 8	300 x 200	026817
12 x 10	300 x 250	026818
14	350	026825
14 x 4	350 x 100	026820
14 x 6	350 x 150	026821
14 x 8	350 X 200	026822
14 x 12	350 X 300	026824
16	400	026832
16 x 4	400 x 100	026826
16 x 6	400 x 150	026827
16 x 8	400 x 200	026828
16 x 10	400 x 250	026829
16 x 12	400 x 300	026830
16 x 14	400 x 350	026831
18 x 4	450 x 100	026833
18 x 6	450 x 150	026834

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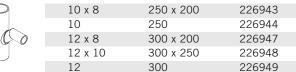
Dimension		Product
inches	mm	Code

Sanitary Tee Sp x H x H

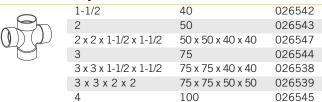


Sanitary Tee	Sp x Sp x H		MJ GREY
	8 x 4	200 x 100	226955
	8 x 6	200 x 150	226940
	10 x 4	250 x 100	226939
	10 x 6	250 x 150	226942
	12 x 4	300 x 100	226945
\bigcirc	12 x 6	300 x 150	226946

Sanitary Tee Sp x Sp x Sp MJ GREY 8 200 226941 10 x 8 250 x 200 226943



Double Sanitary Tee H x H x H x H



Sanitary Tee Side Inlet (left hand) H x H x H x H SI

	3 x 3 x 3 x 1-1/2	75 x 75 x 75 x 40	026395
	3 x 3 x 3 x 2	75 x 75 x 75 x 50	026396
Ø(1)			

Sanitary Tee Side Inlet (right hand) H x H x H x H X I

0	3 x 3 x 3 x 1-1/2	75 x 75 x 75 x 40	026397
	3 x 3 x 3 x 2	75 x 75 x 75 x 50	026398

Double Sanitary Tee Side Inlet H x H x H x H x H SI

3 x 3 x 3 x 3 x 1-1/2 75 x 75 x 75 x 75 x 40 026336



90° Elbow H x H



1 1/2	40	026121
1-1/2 L	40 L	026024
2	50	026035
2 L	50 L	026122
3	75	026025
3 L	75 L	026123
4	100	026124
6	150	026125
8	200	026126
10	250	026127
12	300	026128
14	350	026129
16	400	026130
18	450	026131

90° Elbow Sp x H



1-1/2	40	026231
2	50	026232
3	75	026233
4	100	026234
6	150	026235
8	200	026236
10	250	026237
12	300	026238
14	350	026135
16	400	026136
18	450	026137

90° Elbow Sp x Sp

0
J

x Sp		MJ GREY
8	200	226934
10	250	226908
12	300	226909

90° Reducing Elbow Closet Bend Reducing Sp x H

W Closet Bend Reduc
 4 x 3 100 x 75

026026

90° Reducing Elbow H x H



4 x 3 100 x 75

026155

Products manufactured by/for IPEX Inc.



Product Availability

	Dime	nsion	Product		Dime	ension	
	inches	mm	Code		inches	mm	
90° Elbow Ex	tra Long Sweep	НхН		22-1/2° Elbow	НхН		
	2	50	026157		1-1/2	40	
	2	30	020137		2	50	
					3	75	
					4	100	
60° Elbow H x	Н				6	150	
-	1-1/2	40	026261		8	200	
	2	50	026262		10	250	
	3	75	026262		12	300	
	4	100	026264		16	400	
	·	100	02020.	00.4/00.511			
45° Elbow - Sh	nort Turn Hx	Н		22-1/2° Elbow	Sp x H	150	
	1-1/2	40	026241	_	6	150	
	2	50	026242		8	200	
	3	75	026243		10	250	
	4	100	026244		12	300	
	6	150	026245		14	350	
	8	200	026246		16	400	
	10	250	026247				
	12	300	026248				
	14	350	026249	22-1/2° Elbow	- Short Turn	Sp x Sp	
	16	400	026250		8	200	
	18	450	026425		10	250	
					12	300	
45° Elbow - SI	hort Turn Sp	хН					
	1-1/2	40	026221	11-1/4° Elbow	НхН		
	2	50	026221		6	150	
	3	75	026223		8	200	
	4	100	026223		10	250	
1 T	6	150	026072		12	300	
	8	200	026226		14	350	
	10	250	026270		16	400	
	12	300	026271				
	14	350	026272	11-1/4° Elbow	SpxH		
	16	400	026273		6	150	
	18	450	026274		8	200	
					10	250	
					12	300	
45° Elbow - Sh	ort Turn Sp	x Sn	MJ GREY	7	14	350	
	8	200	226910		16	400	
	10	250	226911				
	12	300	226912				
	12	300	220312				

Products manufactured by/for IPEX Inc.



Dimer	Product	
inches	mm	Code

Dimension **Product** Code inches mm

45° Wye H x H x H



хпхп		
1 1/2	40	026171
2	50	026172
2 x 1-1/2 x 1-1/2	50 x 40 x 40	026194
2 x 2 x 1-1/2	50 x 50 x 40	026195
3	75	026173
3 x 3 x 1-1/2	75 x 75 x 40	026201
3 x 3 x 2	75 x 75 x 50	026196
4	100	026174
4 x 4 x 2	100 x 100 x 50	026198
4 x 4 x 3	100 x 100 x 75	026197
6	150	026175
6 x 6 x 4	150 x 150 x 100	026199
8	200	026560
8 x 4	200 x 100	026606
8 x 6	200 x 150	026607
10	250	026706
10 x 4	250 x 100	026703
10 x 6	250 x 150	026704
10 x 8	250 x 200	026705
12	300	026711
12 x 4	300 x 100	026707
12 x 6	300 x 150	026708
12 x 8	300 x 200	026709
12 x 10	300 x 250	026710
14	350	026717
14 x 4	350 x 100	026712
14 x 6	350 x 150	026713
14 x 8	350 x 200	026714
14 x 10	350 x 250	026715
14 x 12	350 x 300	026716
16	400	026724
16 x 4	400 x 100	026718
16 x 6	400 x 150	026719
16 x 8	400 x 200	026720
16 x 10	400 x 250	026721
16 x 12	400 x 300	026722
18 x 4	450 x 100	026725
18 x 6	450 x 150	026726

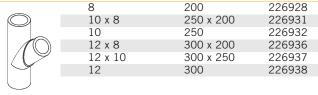
45° Wye SpxHxH



3	75	026635

5° Wye	Sp x Sp x H		MJ GREY
	8 x 4	200 x 100	226926
	8 x 6	200 x 150	226927
	10 x 4	250 x 100	226930
100	10 x 6	250 x 150	226929
	12 x 4	300 x 100	226933
	12 x 6	300 x 150	226935
\sim			

45° Wye Sp x Sp x Sp



Double 45° Wye $H \times H \times H \times H$

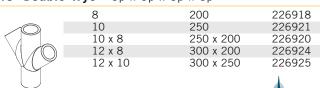


ŀЭ	wye нхнхн	H x H	
	1-1/2	40	026637
	2	50	026456
\	2 x 2 x 1-1/2 x 1-1/2	50 x 50 x 40 x 40	026642
/	3	75	026639
	3 x 3 x 1-1/2 x 1-1/2		026643
	3 x 3 x 2 x 2	75 x 75 x 50 x 50	026644
	4 x 4 x 3 x 3	100 x 100 x 75 x 75	026457
	6	150	026752
	8	200	026755
	8 x 4	200 x 100	026753
	8 x 6	200 x 150	026754
	10 x 4	250 x 100	026756
	10 x 6	250 x 150	026757
	10 x 8	250 x 200	026758
	12	300	026764
	12 x 4	300 x 100	026760
	12 x 6	300 x 150	026761
	12 x 8	300 x 200	026762
	12 x 10	300 x 250	026763
	14	350	026770
	14 x 4	350 x 100	026765
	14 x 6	350 x 150	026766
	14 x 8	350 x 200	026767
	14 x 10	350 x 250	026768
	14 x 12 16	350 x 300 400	026769 026777
	16 x 4	400 x 100	026771
	16 x 6 16 x 8	400 x 150 400 x 200	026772 026773
	16 x 10	400 x 200 400 x 250	026774
	16 x 10	400 x 250 400 x 300	026774
	16 x 14	400 x 350	026776
	18 x 4	450 x 100	026778
	18 x 6	450 x 150	026779

45° Double Wye SpxSpxHxH

	8 x 4	200 x 100	226954
	8 x 6	200 x 150	226916
	10 x 4	250 x 100	226917
	10 x 6	250 x 150	226919
	12 x 4	300 x 100	226922
	12 x 6	300 x 150	226923
l l			

45° Double Wye Sp x Sp x Sp x Sp



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Product Availability

Dimension		Product
inches	mm	Code

Reducer Coupling H



•	НхН		
	2 x 1-1/2	50 x 40	026362
	3 x 1-1/2	75 x 40	026363
	3 x 2	75 x 50	026364
	4 x 1-1/2	100 x 40	026369
	4 x 2	100 x 50	026365
	4 x 3	100 x 75	026366
	6 x 4	150 x 100	026860
	8 x 4	200 x 100	026861
	8 x 6	200 x 150	026867
	10 x 4	250 x 100	026862
	10 x 6	250 x 150	026868
	10 x 8	250 x 200	026900
	12 x 10	300 x 250	026907
	14 x 12	350 x 300	026913

Reducer Bushing Sp x H



•	OP X II		
	2 x 1-1/2	50 x 40	026282
	3 x 1-1/2	75 x 40	026292
	3 x 2	75 x 50	026284
	4 x 2	100 x 50	026288
	4 x 3	100 x 75	026286
	6 x 4	150 x 100	026054
	8 x 4	200 x 100	026446
	8 x 6	200 x 150	026447

Reducer Bushing (Extended) Sp x H



, ,		- 1	
	10 x 8	250 x 200	026962
	12 x 10	300 x 250	026966
	14 x 12	350 x 300	026971

Reducer Bushing (Extended) Sp x Sp MJ GREY



10 x 8 250 x 200 2269	
	3950
12 x 8 300 x 200 2269	5951
12 x 10 300 x 250 22699	3952

Reducer Bushing (Dishwasher Bushing) Sp x FPT



_	•	0. 1	
	1-1/2 x 1/2	40 x 12	026277
	1-1/2 x 3/4	40 x 20	026278

Reducer Bushing Sp x H



-		
4 x 3	100 x 75	026294

Adapts Plastic Sewer Ftg. to Plastic DWV Pipe

Dimension		Product
inches	mm	Code

Adapter Sleeve Sp x H



SP X II		
2	50	026310
3	75	026311
4	100	026312
6	150	026313

Adapts Plastic DWV Ftg. to Plastic Sewer Pipe

Male Adapter H x MPT



1-1/2	40	026331
2	50	026332
3	75	026333
4	100	026334

Female Adapter H x FPT



1-1/2	40	026341
2	50	026342
3	75	026343
4	100	026344

Coupling H x H



1-1/2	40	026351
2	50	026352
3	75	026353
4	100	026354
6	150	026356
8	200	026358
10	250	026359
12	300	026360
14	350	026361
16	400	026367
18	450	026368

Plastic Sewer Hub H x H



4 x 3 100 x 75 026376

Adapts Plastic Sewer Pipe to Plastic DWV Pipe

Plastic M-J Spigot MJ Sp x H



,01	MID OP A I	'	
	2	50	026522
	3	75	026523
	4	100	026524
	4 x 3	100 x 75	026535

Adapts M-J Cast Iron Pipe to Plastic DWV Pipe

Products manufactured by/for IPEX Inc.



Dimension		Product
inches mm		Code

P Trap Solvent Weld H x H



1-1/2	40	026431
2	50	026432
3	75	026433
4	100	026434
4 x 3	100 x 75	026669

Solvent Weld with Cleanout H x H



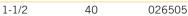
1-1/2	40	026441
2	50	026442

Union Connection H x H



1-1/2	40	026443
2	50	026444

Union Connection with Cleanout H x H





U Bend H x H

_	_

3	75	026498
4	100	026499
6	150	026503

Fitting Trap Adapter

hrei	Plastic Nu	t & wasne	t 2b x 211b 10111
1-	1/2	40	026304
	2	50	026305

Pipe Trap Adapter Plastic Nut & Washer H x Slip Joint



ici i lastic	Nut & Washer	II X Olip 3
1-1/2	40	026321
1-1/2 x 1-1/4	40 x 32	026329
2	50	026328

Dimension **Product** Code inches

90° Pipe Trap Adapter H x Slip Joint



1-1/2 x 1-1/2	40 x 40	026330

Sanitary Tee Trap Adapter

H x H x Slip Joint 026179



Copper to DWV Pipe Adapter H x Slip Joint



40	026320
40 x 32	026430
50	026510
	40 x 32

Tail Piece Adapter (Plastic Nut & Washer) Sp x Slip Joint



1-1/2	40	026555
1-1/2 x 1-1/4	40 x 32	026556

Swivel Strainer Adapter H x Swivel Nut



1-1/2 40 026577

Closet Flange	One Piece I	Plastic Slip	
	4	100	026573
	4 x 3	100 x 75	026584

Closet Flange

One Piece Plastic Slip with Spigot End 100 x 75 026592





Dimension		Product
inches	mm	Code

One Piece Plastic Slip with Molded Test Plate 100 x 75 026591



Closet Flange

Closet Flange One Piece Plastic Slip Flush Fit



100 x 75 026594

Closet Flange One Piece Plastic Slip Flush Fit w Molded Test Plate



4 x 3 100 x 75 026595

Adjustable Closet Flange with Plastic Ring Slip 4 x 3 100 x 75 026586



Adjustable Closet Flange w Plastic Ring Slip w Molded Ring Slip



4 x 3 100 x 75 026588

Adjustable Closet Flange with Plastic Ring Sp



4 x 3 Close 100 x 75 Close 026587

45° Disharge Closet Flange Adjustable with Plastic Ring Slip 026589



100 x 75

Dimension **Product** Code inches mm

Closet Flange Kit for Concrete



100 x 75 026593

026459

for use in Slab on Grade W.C. installations

Closet Flange Spacer Ring



100 026176

Urinal Flange Hub

50

Expansion Joint - Type 1 (Vertical Use Only) H x H 1-1/2 40 026485 2 50 026486 75 026487

Expansion Joint - Type 1 (Vertical Use Only) H x Sp End Piston

1-1/2	40	026491
2	50	026492
3	75	026384

Expansion Joint – Type 2 (Vertical Use Only) $H \times H$ 100 026489





Product

Product Availability

Dimension		Product
inches	mm	Code

Dishwasher Wye H x H x Hose Barb



1-1/2 x 1-1/2 x 1/2 40 x 40 x 12 026495

Drain Grate	Sp		
	4	100	026482



Dimension

Slip Cap H



1-1/2	40	026411
2	50	026412
3	75	026413
4	100	026414
6	150	026415
8	200	026416

Polyethylene Cap Slip-on Style



,	ab 311b-011 3	Lyie	
	1-1/2	40	026875
	2	50	026876
	3	75	026878
	4	100	026880

Additional fittings up to 24" diameter may be available; please contact IPEX for assistance.



Products manufactured by/for IPEX Inc.

Product Availability

Dimension		Product
inches	mm	Code

System XFR DWV Pipe



-		
1-1/2	40	110067
2	50	110068
3	75	110069
4	100	110070
6	150	110071
8	200	110072
10	250	110073
12	300	110074

Line Cleanout H x H x Gasket Plug



	II X II X Ga	Skelling	
	1-1/2	40	526040
	2	50	526041
	3	75	526103
	4	100	526104
	4 x 3 x 4	100 x 75 x 100	526105
	6	150	526161
	8	200	426162
	10	250	526163
	12	300	526164

Line Cleanout	Sp x Sp x 7	hreaded Plug	MJ GREY
	8	200	526766

Plug Cleanout MPT with gasket



1-1/2	40	526401
2	50	526402
3	75	526403
4	100	526404
6	150	526405

Fitting Cleanout Sp x FPT



1-1/2	40	526042
2	50	526046
3	75	526047
4	100	526048
6	150	426050

Fitting Cleanout Sp x Gasket Plug



40	526345
50	526346
75	526347
100	526348
150	526349
	50 75 100

Dimension		Product
inches	mm	Code

Tube End Cleanout H x Gasket Plug



1-1/2	40	526291
2	50	526298
3	75	526299
4	100	526300

Sanitary Tee H x H x H



1-1/2	40	526081
2	50	526082
2 x 1-1/2 x 1-1/2	50 x 40 x 40	526058
2 x 1-1/2 x 2	50 x 40 x 50	526057
2 x 1-1/2	50 x 40	526056
3	75	526083
3 x 1½	75 x 40	526061
3 x 2	75 x 50	526060
4	100	526084
4 x 2	100 x 50	526064
4 x 3	100 x 75	526066
6	150	526377
6 x 4	150 x 100	526385
8	200	526810
8 x 4	200 x 100	526808
8 x 6	200 x 150	526809
10	250	526814
10 x 4	250 x 100	526811
10 x 6	250 x 150	526812
10 x 8	250 x 200	526813
12	300	526819
12 x 4	300 x 100	526815
12 x 6	300 x 150	526816
12 x 8	300 x 200	526817
12 x 10	300 x 250	526818

Sanitary Tee SpxHxH



1-1/2	40	526550
3 x 1-1/2	75 x 40	526552
4	100	426557

Sanitary Tee	SpxSpxH	M	IJ GREY
	8 x 4	200 x 100	526926
	8 x 6	200 x 150	526998
	10 x 4	250 x 100	526997
	10 x 6	250 x 150	526758
	12 x 4	300 x 100	526761
	12 x 6	300 x 150	526762

Products manufactured by/for IPEX Inc.



Product Code

Product Availability

Dimension

inches

Dimension		Product
inches	mm	Code

inches	mm	Code
		FOR USE WITH

Sanitary Tee	Sp x Sp x Sp		MJ GREY
	8	200	526999
	10 x 8	250 x 200	526759
	10	250	526760
	12 x 8	300 x 200	526763
(C)	12 x 10	300 x 250	526764
	12	300	526765

Double Sanit	ary lee H x	HxHxH	
	1-1/2	40	526542
	2	50	526543
	2 x 1-1/2	50 x 40	526547
	3	75	526544
	3 x 1-1/2	75 x 40	526538
	3 x 2	75 x 50	426539

Sanitary Tee	Side Inlet	(left hand)	НхНх	H x H SI
	3 x 3 x 3 x 1-1	/2 75 x 75 x	75 x 40	526395
	3 x 3 x 3 x 2	75 x 75 x	75 x 50	526396

Sanitary Tee	Side Inlet	(right hand)	НхН	x H SI x	Н
	3 x 3 x 3 x 1-1/2	75 x 75 x 75	x 40	526397	
	3 x 3 x 3 x 2	75 x 75 x 75	x 50	526398	

Upright Extended Wye	H x x H x Sp	
3	75	526006

Single Apartme	ent Fitting	Нх Ѕрх Н	
	3	75	526007
Double Apartm	ent Fitting	Нх Ѕрх Нх Н	

90° Elbow H	v Ll		
30 EIDUW H		40	F06101
	1-1/2	40	526121
	1-1/2 L	40 L	426024
	2	50	526035
	2 L	50 L	526122
	3	75	526025
	3 L	75 L	526123
	4	100	526124
	6	150	526125
	8	200	526126
	10	250	526127
	12	300	526128
90° Elbow Sp			
an Finam 2b	x H	40	F06021
	1-1/2	40	526231
	2	50	526232
	4	75	526233
	6	100	526234 526235
	8	150 200	526236
	10	250	526236
	12	300	526237
	12	300	320236
90° Elbow Sp	x Sp		
	. 8	200	526967
	10	250	526968
	12	300	526970
90° Reducing E	Ibow Closet	Bend Reducing	g Sp x H
	4 x 3	100 x 75	426026
OO! Doducing F	lhow II II		
90° Reducing E			
	4 x 3	100 x 75	526155
90° Elbow Ext	ra Long Sweep	НхН	
	2	50	426157

Products manufactured by/for IPEX Inc.

Canada: Website: www.ipexinc.com • Toll Free: 866-473-9462

75

526008



Product Availability

		Dimension		Dredust	
		inches	mm	Product Code	
		11101100			
60° Elbow	НхН				
		1-1/2	40	526261	
		2	50	526262	
		3	75	526253	
		4	100	526264	
45° Elbow	Short -	Γurn ΗχΕ	ı		
TO LIDUW	311011	1-1/2	40	526241	
		2	50	526242	
		3	75	526243	
		4	100	526244	
		6			
			150	526245	
		8	200	526246	
		10	250	526247	
		12	300	526248	
45° Elbow	Short ⁻	Turn Sp x	Н		
		1-1/2	40	526221	
		2	50	526071	
		3	75	526223	
1 Y		4	100	526072	
		6	150	526073	
		8	200	526226	
		10	250	526270	
		12	300	526271	
45° Elbow	Short 7	Turn Sp x	Sp	FOR USE WITH MJ GREY	
		8	200	526971	
		10	250	526770	
		12	300	526771	
45° Elbow	Long T	urn H x H			
		6	150	426038	
45° Elbow	Long T	urn Spx	Н		
		6	150	426225	

	Dimension		Product
	inches	mm	Code
00 4 (0) 511			
22-1/2° Elbow	НхН		
	1-1/2	40	526251
	2	50	526252
	3	75	526253
	4	100	526254
	6	150	526255
	8	200	526256
	10	250	526257
	12	300	526258
22-1/2° Elbow	Sp x H		
	6	150	526651
	8	200	526652
	10	250	526653
	12	300	526654
22-1/2° Elbow	Sp x Sp		MJ GREY
	8	200	526972
	10	250	526973
	12	300	526908
11-1/4° Elbow	НхН		
	6	150	526671
	8	200	526672
\bigcirc	10	250	526673
	12	300	526674

	12	300	320074	
11-1/4° Elbow	Sp x H			
	6	150	526681	
	8	200	526682	
	10	250	526683	
	12	300	526684	

Products manufactured by/for IPEX Inc.



Product Availability

Dimension		Product
inches	mm	Code

45° Wye H x H x H



(H x H		
	1-1/2	40	526171
	2	50	526172
	2 x 1-1/2 x 1-1/2	50 x 40 x 40	526194
	2 x 1-1/2	50 x 40	526195
	3	75	526173
	3 x 1-1/2	75 x 40	526201
	3 x 2	75 x 50	526196
	4	100	526174
	4 x 2	100 x 50	526198
	4 x 3	100 x 75	526197
	6	150	526175
	6 x 4	150 x 100	526199
	8	200	526560
	8 x 4	200 x 100	526606
	8 x 6	200 x 150	526607
	10	250	526706
	10 x 4	250 x 100	526703
	10 x 6	250 x 150	526704
	10 x 8	250 x 200	526705
	12	300	526711
	12 x 4	300 x 100	526707
	12 x 6	300 x 150	526708
	12 x 8	300 x 200	526709
	12 x 10	300 x 250	526710

45° Wye SpxHxH



V 11 /V 11		
3	75	426635
3 x 1-1/2	75 x 40	426638

45° Wye Sp x Sp x H

8 x 4 200 x 100 526985
8 x 6 200 x 150 526986



•		
8 x 4	200 x 100	526985
8 x 6	200 x 150	526986
10 x 4	250 x 100	526988
10 x 6	250 x 150	526989
12 x 4	300 x 100	526992
12 x 6	300 x 150	526993

300

526996

45° Wye Sp 8 200 526987

10 x 8 250 x 200 526990
10 250 526991
12 x 8 300 x 200 526994
12 x 10 300 x 250 526995

12

Dimension		Product	
inches	mm	Code	

Double 45° Wye H x H x H x H



_	11 X 11 X 11 X	• •	
	1-1/2	40	526637
	2	50	526456
	2 x 1-1/2	50 x 40	526642
	3	75	526639
	3 x 1-1/2	75 x 40	526643
	3 x 2	75 x 50	526644
	4 x 3	100 x 75	526457
	6	150	426752
	8	200	426755
	8 x 4	200 x 100	426753
	8 x 6	200 x 150	526754
	10	250	426759
	10 x 4	250 x 100	426756
	10 x 6	250 x 150	426757
	10 x 8	250 x 200	426758
	12	300	426764
	12 x 4	300 x 100	426760
	12 x 6	300 x 150	426761
	12 x 8	300 x 200	426762
	12 x 10	300 x 250	426763

45° Double Wye Sp x Sp x H x H



8 x 4	200 x 100	526769
8 x 6	200 x 150	526974
10 x 4	250 x 100	526976
10 x 6	250 x 150	526977
12 x 4	300 x 100	526980
12 x 6	300 x 150	526982

45° Double Wye Sp x Sp x Sp x Sp



Sh x Sh y	(Sh x Sh	
8	200	526975
10	250	526979
10 x 8	250 x 200	526978
12 x 8	300 x 200	526983
12 x 10	300 x 250	526984

Products manufactured by/for IPEX Inc.



Product Availability

	Dimension		Product
	inches	mm	Code
Increaser Coupl	ing HxH		
	2 x 1-1/2	50 x 40	526362
	3 x 1-1/2	75 x 40	526363
	2 0	75 50	F0C2C4



ng HxH		
2 x 1-1/2	50 x 40	526362
3 x 1-1/2	75 x 40	526363
3 x 2	75 x 50	526364
4 x 1-1/2	100 x 40	526369
4 x 2	100 x 50	526365
4 x 3	100 x 75	526366
6 x 4	150 x 100	526860
8 x 4	200 x 100	526861
8 x 6	200 x 150	526867
10 x 4	250 x 100	526862
10 x 6	250 x 150	526868
10 x 8	250 x 200	526900
12 x 6	300 x 150	526869
12 x 8	300 x 200	526901
12 x 10	300 x 250	526907

Reducer Bushing Sp x H



•	эрхп		
	2 x 1-1/2	50 x 40	526282
	3 x 1-1/2	75 x 40	526292
	3 x 2	75 x 50	526284
	4 x 2	100 x 50	526288
	4 x 3	100 x 75	526286
	6 x 4	150 x 100	526054
	8 x 4	200 x 100	526446
	8 x 6	200 x 150	526447



10 x 4	250 x 100	526296
10 x 6	250 x 150	526297
10 x 8	250 x 200	526962
12 x 4	300 x 100	526963
12 x 6	300 x 150	526964
12 x 8	300 x 200	526965
12 x 10	300 x 250	526966

Reducer Bushing	g (Extended)	Sp x Sp	MJ GREY
	10 x 8	250 x 200	526981
	12 x 8	300 x 200	526767
	12 x 10	300 x 250	526768

Dimension		Product
nches	mm	Code

Male Adapter H x MPT



1-1/2	40	526331
2	50	526332
3	75	526333
4	100	526334

Female Adapter H x FPT



1-1/2	40	526341
2	50	526342
3	75	526343
4	100	526344

Coupling H x H



`	• •		
	1-1/2	40	526351
	2	50	526352
	3	75	526353
	4	100	526354
	6	150	526356
	8	200	526358
	10	250	526359
	12	300	526360

Plastic MJ Spigot MJ Sp x H



MI Sh y II		
2	50	526522
3	75	526523
4	100	526524

Adapts M-J Cast Iron Pipe to Plastic DWV Pipe

P Trap Solvent Weld H x H



1-1/2	40	526431
2	50	526432
3	75	526433
4	100	526434

P Trap Solvent Weld with Cleanout H x H



1-1/2	40	526441
2	50	526442

Products manufactured by/for IPEX Inc.



Dimension		Product
inches mm		Code

P Trap Union Connection H x H



1-1/2	40	526443
2	50	526444

P Trap Union Connection with Cleanout H x H



1-1/2	40	526505

U Bend H x H



4	100	526499
6	150	426503

Fitting Trap Adapter Sp x Slip Joint



pto: op x or	ip some	
1-1/2	40	426304
2	50	426305

Plastic Nut & Washer

Pipe Trap Adapter H x Slip Joint



۰	I II X SIIP J	OTITE		
	1-1/2	40	526321	
	1-1/2 x 1-1/4	40 x 32	526329	

Plastic Nut & Washer

90° Pipe Trap Adapter H x Slip Joint



1-1/2 x 1-1/2 40 x 40 526330

Sanitary Tee Trap Adapter H x Slip Joint x H



1-1/2 40 4201/9	•		
	40 4201/3	40	1-1/2

Dimension Product inches mm Code

Copper to DWV Pipe Adapter H x Slip Joint



1-1/2	40	426320
1-1/2 x 1-1/4	40 x 32	426430
2	50	426510

Tail Piece Adapter Sp x Slip Joint



1-1/2	40	526555
1-1/2 x 1-1/4	40 x 32	526556

Plastic Nut & Washer

426894

Swivel Strainer Adapter H x Swivel Nut 1-1/2 40



Closet Flange One Piece Plastic Slip



4	100	526573
4 x 3	100 x 75	526584

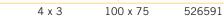
Closet Flange One Piece Plastic Slip w Spigot End



4 x 3 100 x 75 526592

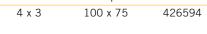
Closet Flange One Piece Plastic Slip w Molded Test Plate





Closet Flange One Piece Plastic Slip Flush Kit





Products manufactured by/for IPEX Inc.



Dime	Product	
inches mm		Code

Dimension **Product** Code inches mm

50

75

(Vertical & Horizontal Use) H x H

526486

526487 526489

426209

426210

426211

426212

Closet Flange One Piece Plastic Slip Flush Kit w Molded Test Plate

100 x 75

1-1/2 3 4

Expansion Joint - Type 1

Adjustable Closet Flange with Plastic Ring Slip 100 x 75

100 6 150 8 200 10 250 12 300

526595

Adjustable Closet Flange w Plastic Ring Slip w Molded Test Plate

4 x 3 100 x 75 526588

45° Discharge Closet Flange Adjustable w Plastic Ring 4 x 3 100 x 75 426589



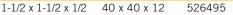
Closet Flange Kit for Concrete



4 x 3 426593 100 x 75

for use in Slab on Grade W.C. installations

Dishwasher Wye H x H x Hose Barb





Slip Cap

1-1/2	40	526411
2	50	526412
3	75	526413
4	100	526414
6	150	526415
8	200	526416
10	250	526417
12	300	526/18



Product Availability

Dime	Product		
inches	inches mm		

MJ Coupling H x H



200	094053
250	094054
300	094055
	250

T-Handle Torque Wrench 80 in-1b

5/16" socket

094139





Handling & Installation Procedures

SOLVENT CEMENT

Only high quality IPEX System 15/XFR cements and primers are recommended for use with System 15 or System XFR DWV piping.

This product offering includes One-Step (i.e. no primer required) in both Medium Bodied and Heavy Bodied, as well as Two-Step formulations, all of which are grey in color. Our System 15/XFR cement products are CSA certified.

Meets Low VOC limit of 510 mg/L as per SCAQMD Rule 1168.

Specific cement recommendations are shown below for proper selection of System 15/XFR cement products.

Cement Selection		Proper Cement Applicators		
Pipe Diameter	IPEX System 15°/ System XFR°	Pipe Diameter	Applicator	
1-1/2" to 6"	One-Step with or without Primer	1-1/2" to 3"	1" Round Dauber	
8" to 12"	Two-Step Cement with Primer	3" to 6"	3" Roller	
14" and larger	Xirtec® 19 PVC cement with Primer	8" and larger	7" Roller or 6" Swab	

Average Joint Cure Schedule for System 15/XFR Solvent Cements

Temperature Range (during assembly)	Cure Time Pipe Sizes 1-1/2" to 2"	Cure Time Pipe Sizes 3" to 8"	Cure Time Pipe Sizes 10" to 14"	Cure Time Pipe Sizes 16" +
60° to 100°F	30 minutes	1-1/2 hours	48 hours	72 hours
40° to 60°F	45 minutes	4 hours	96 hours	6 days
0° to 40°F	1 hour	72 hours	8 days	14 days

^{*} The figures in the table are estimates based on laboratory tests for water applications (chemical applications may require different set times). In damp or humid weather (relative humidity over 60%) allow 50% more cure time.

NOTE 1: Due to the many variables in the field, these figures should be used as a general guideline only.

NOTE 2: Joint cure schedule is the necessary time needed before pressurizing the system.



Products manufactured by/for IPEX Inc.

Practical Considerations

Cold Weather

Although normal installation temperatures are between $40^{\circ}F$ ($4^{\circ}C$) and $110^{\circ}F$ ($43^{\circ}C$), high strength joints have been made at temperatures as low as $-15^{\circ}F$ ($-26^{\circ}C$).

In cold weather, solvents penetrate and soften the plastic pipe and fitting surfaces more slowly than in warm weather. In this situation, the plastic is more resistant to solvent attack and it becomes even more important to pre-soften surfaces with an aggressive primer. Be aware that because of slower evaporation, a longer cure time is necessary.

Tips for solvent cementing in cold weather

- Prefabricate as much of the system as is possible in a heated work area.
- Store cements and primers in a warmer area when not in use and make sure they remain fluid.
- Take special care to remove moisture including ice and snow from the surfaces to be joined.
- Ensure that the temperature of the materials to be joined (re: pipe and fittings) is similar.
- Use System15/XFR Primer to soften the joining surfaces before applying cement. More than one application may be necessary.
- Allow a longer cure period before the system is used.

NOTE: A heat blanket may be used to speed up the set and cure times.

Hot Weather

There may be occasions when solvent cementing plastic pipe at 95°F (35°C) temperatures and above cannot be avoided. If special precautions are taken, problems can be avoided.

Solvent cements for plastic pipe contain high-strength solvents which evaporate faster at elevated temperatures. This is especially true when there is a hot wind blowing. If the pipe is stored in direct sunlight, the pipe surface temperatures may be 20°F to 30°F (10°C to 15°C) higher than the ambient temperature. In this situation, the plastic is less resistant to attack and the solvents will attack faster and deeper, especially inside a joint. It is therefore very important to avoid puddling the cement inside the fitting socket and to ensure that any excess cement outside the joint is wiped off.

Tips for solvent cementing in hot weather:

- Store solvent cements and primers in a cool or shaded area prior to use.
- If possible, store fittings and pipe or at least the ends to be solvent welded, in a shady area before cementing.
- Try to do the solvent cementing in cooler morning hours.
- Cool surfaces to be joined by wiping with a damp rag.
- Make sure that the surface is dry prior to applying solvent cement.
- Make sure that both surfaces to be joined are still wet with cement when putting them together. With large size pipe, more people on the crew may be necessary.
- Using a primer and a heavier, high-viscosity cement will provide a little more working time.

NOTE: During hot weather, the expansion-contraction effect may increase. For additional information, please refer to the most current IPEX Mechanical Technical Manual – Drainage Systems for Noncombustible Construction.



Practical Considerations

HANDLING AND STORAGE

System 15 and System XFR are strong, lightweight piping materials and, as such, are easily handled. However, because of their light weight there is a tendency for this product to be mishandled on the jobsite.



CAUTION

Use a forklift to unload System 15 and System XFR crates directly from the delivery vehicle. Avoid using wire ropes, chains or slings. Failure to properly handle crates may cause injury.

As is common for most rigid piping materials, impact strength for System 15 and XFR is reduced in colder weather. Thus, when unloading these components in cold weather, take extra care to minimize impact damage. Since the soundness of any joint depends on the condition of the pipe end, exercise care during storage and handling to avoid damaging these ends.

While in transit, make sure pipe and fittings are well-secured, so there is no potential for a load to shift.

When storing System 15 and System XFR pipe, bear the following points in mind:

- Treat these products as you would other DWV piping products: take care during handling and storage to prevent damaging the pipe.
- Store System 15 and System XFR pipe on a level surface. If placed on the ground, make sure the pipe is supported by timbers spaced no more than 3 feet apart.
- When storing pipe on a flat smooth surface place smaller diameter pipe on top of larger pipe.
- Make sure the pipe is not stored close to sources of heat such as boilers, steam lines, engine exhaust outlets, etc.

PROLONGED OUTDOOR STORAGE AND PROTECTION

System 15® and System XFR®

Prolonged exposure of System 15 and System XFR pipe to direct rays of the sun will not damage the pipe. However, some mild discoloration may take place in the form of a milky film on exposed surfaces. This change in colour indicates a harmless chemical transformation at the surface of the pipe. A slight reduction in impact strength may occur at the discolored surfaces, but is not enough to cause problems in field installation or operation.

Discoloration of the pipe can be avoided by shading it from the direct rays of the sun. This can be accomplished by covering the stockpile or the crated pipe with an opaque material such as canvas. If the pipe is covered, always allow for circulation of air through the pipe to avoid heat buildup in hot summer weather. (Refer to the section entitled 'Painting' below for more information.)

PAINTING

System 15 and System XFR pipe and fittings can be easily protected from ultraviolet oxidation by painting with a heavily pigmented, exterior water-based latex paint. White or a similar light colour is preferred to minimize heat absorption on the pipe surface. Apply latex paint thickly as an opaque coating on well cleaned and lightly sanded pipe and fittings.



Practical Considerations

PIPE DIAMETERS 1-1/2" - 6"

Installers have two options for these sized pipes: either Oneor Two-Step Cement. IPEX System 15 and System XFR onestep cement eliminates primer from the solvent welding process, thus saving time and material costs.

Because, System 15 and System XFR One-Step cement does not require the use of a primer, there is a minimum temperature recommended when using this product. Contact IPEX for guidelines.

Although a number of One-Step cements are available, not all of them are equal. Various levels of solvent and PVC resin in each formulation may alter results of the installation:

- A product with too little solvent may not sufficiently soften the surfaces prior to inserting the pipe into the fitting.
- A product with too little PVC resin may not be heavy enough to sufficiently fill the area between pipe and fitting at the socket end of the joint.

IPEX System15/XFR One-Step Cement has been tested with System 15 and System XFR piping and is strongly recommended to be used for best results.

PIPE DIAMETERS 8" & ABOVE

IPEX does not recommend One-Step cement from any manufacturer be used for DWV applications with this size pipe diameter. For specific installation recommendations using large diameter pipe, consult IPEX's Solvent Cementing Guide. When requested, IPEX representatives will also visit a jobsite to provide an onsite demonstration of recommended solvent cementing procedures.

For larger pipe diameters, select System 15/XFR Two-Step cement along with System 15/XFR primer. This Two-Step cement is a heavy-bodied, medium-setting cement that provides the good gap filling capabilities required for pipe sizes through to 12".

IPEX recommends Xirtec® 19 PVC cement for System 15 in sizes larger than 12".

More care should be used when using solvent cement in below freezing temperatures. Solvent cement products should be stored in a warm environment prior to use in colder weather to avoid the possibility of freezing. Consideration may also be given to the use of MJ Grey Couplings in available sizes as an alternate to solvent welding in colder conditions.

HANDLING AND STORAGE

Solvent Cement

Store in the shade between 4°C (40°F) and 43°C (110°F) or as specified on label. Keep away from heat, spark, open flame and other sources of ignition. Keep container closed when not in use. If the unopened container is subjected to freezing, it may become extremely thick or gelled. This cement can be placed in a warm area, where after a period of time, it will return to its original, usable condition. But such is not the case when gelatin has taken place because of actual solvent loss — for example, when the container was left open too long during use or not properly sealed after use. Cement in this condition should not be used and should be properly discarded.

IPEX solvent cements are formulated to be used "as received" in original containers. Adding thinners or primers to change viscosity is not permitted. If the cement is found to be jelly-like and not free flowing, it should not be used.



PVC

Primer and cement must be used within 3 years of the date of manufacture shown on the bottom of the can.

DO NOT USE primer or cement which is greater than 3 years old.



Practical Considerations

TESTING DRAINAGE SYSTEMS

After a system is installed and all solvent weld joints cured, a hydrostatic pressure test should be performed prior to the piping system being commissioned. Testing of drainage and venting systems shall be conducted in accordance to the requirements of local plumbing codes.

When pressure testing, the system should be slowly filled with water and all air bled from the highest and farthest points in the installation. Once the system has reached the desired test pressure, it should remain at this pressure for one hour.

During this time the assembled sections should be visually inspected for joint leaks that may have occurred in the system. If a leak is discovered at a solvent weld joint, the joint must be removed and replaced or alternatively may be back-welded in place by a worker certified or experienced in thermoplastic welding. It is not necessary to fully drain the system if the affected fitting can be isolated for the required work.

Solvent weld systems may be pressure-tested with water at levels higher than code requirements if desired by the project design engineer. Contact IPEX for details.

Normal testing procedures for System 15 or System XFR may be employed if using MJ Grey couplings. Maximum water pressure shall be 10 feet of head for all sizes. Proper safety precautions and protective equipment should be employed during all testing procedures.



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Building Code Considerations

CODE COMPATIBILITY

System 15 pipe and fittings, when used in combination with System XFR, not only satisfies National and Provincial Building Codes but also provides a cost effective trouble-free long-term installation.

- To use thermoplastic piping in a building classified as noncombustible, the material must meet a Flame Spread Rating of 25 or less. Approval to use thermoplastic piping in noncombustible buildings is detailed in clause 3.1.5.16 of the building code.
- Products for use within air plenums must meet a flame spread of 25 or less and a Smoke Developed Classification of 50 or less. (Building Code article 3.6.4.3. (1).)
- Products to be used within a building deemed to be high-rise must also meet a maximum Flame Spread Rating of 25 and maximum Smoke Developed Classification of 50.
- The above Flame and Smoke values are confirmed through listings to ULC \$102.2, latest edition.

By using System 15 and System XFR in combination, designers and contractors can maximize the potential installation and cost benefits offered by these two products.

System 15®

System 15 meets the requirements of noncombustible construction.

In noncombustible buildings, System 15 may be used throughout the building, except for the limitations noted on the following page in the Specifications section. When the piping system enters an air plenum, the transition to System XFR must be made before entering into the plenum space.

System XFR®

System XFR meets the requirements for noncombustible buildings, and the further restrictions of smoke development for air plenums and high- rise buildings.

In high-rise buildings, System XFR must be used throughout the building including parking garages in order to meet the Smoke Developed limit of 50.

NOTE: Combustible DWV piping products are not allowed in a vertical service space.

Drain-Guard™ Double Containment

Depending on your application, Drain-Guard is a double containment piping system using System 15 and or System XFR as its primary components. The many performance benefits of System 15 and System XFR are enhanced by this dual pipe concept.

MJ Grey™

Meets all the same requirements of System 15 and System XFR and can be used in the same applications.

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Building Code Considerations

LISTED SUMMARY

Component	Flame-Spread Rating	Smoke Developed Classification
System 15®		
Pipe	10	N/A
Fittings	15	N/A
System XFR®		
Pipe	≤ 25	≤ 50
Fittings	≤ 25	≤ 50
Drain-Guard™ Double Containment		

Depending on your application, Drain-Guard is a double containment piping system using System 15 and or System XFR as its primary components. The many performance benefits of System 15 and System XFR are enhanced by this dual pipe concept.

MJ Grey [™]		
Couplings	≤ 25	≤ 50



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Specifications

MECHANICAL EASY SPECIFICATIONS

Applications as per 2010 National Building Code of Canada (NBC) Suitability for Use

Non-Combustible Building

		5				
Product	General Usage	Air Plenum	Vertical Service Spaces	High-Rise Building	Underground	
System 15 DWV	P [†]	N	N	N	Р	
System XFR DWV	Р	Р	N	Р	Р	
Drain-Guard Double Containment	Depending on your application, Drain-Guard is a double containment piping system using System 15 and or System XFR as its primary components.					
MJ Grey Coupling	Р	Р	N	Р	P*	

^{† 24&}quot; is not permitted

P = Permitted

N = Not Permitted



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^{*} Permitted by Code but not recommended by IPEX

Specifications

System 15® DWV Pipe and Fittings

IPEX System 15 Drain, Waste and Vent pipe and fittings shall be certified to CSA B181.2. When combustible pipe and fittings are used in buildings required to be of noncombustible construction, they shall be listed in accordance with ULC S102.2 and clearly marked with the certification logo of the testing agency indicating a Flame Spread Rating not greater than 25.

System XFR® DWV Pipe and Fittings

IPEX System XFR Drain, Waste and Vent pipe and fittings shall be certified to CSA B181.2 and when used in noncombustible construction, high-rise buildings and air plenums, they shall be tested and listed in accordance with CAN/ULC S102.2 and clearly marked with the certification logo indicating a Flame Spread Rating not more than 25 and a Smoke Developed Classification not exceeding 50. System XFR pipe must only be installed with System XFR or FR-PRO fittings to ensure compliance with Flame and Smoke listings.

Drain-Guard™ Double Containment

Drain-Guard double containment piping systems provide safe transport of sanitary or storm drainage in critical areas. Should a leak occur, people, equipment and valuable property will be protected from possible harm.

Depending on your application, Drain-Guard is a double containment piping system using System 15 and or System XFR as its primary components. The many performance benefits of System 15 and System XFR are enhanced by this dual pipe concept, including excellent thermal properties, improved flow, longevity and durability, and the security of meeting all code requirements for noncombustible buildings.

MJ Grey™ Couplings

MJ Grey Couplings are a mechanical joint assembly suitable only for use on IPEX System 15 or System XFR pipe and fittings. These couplings come in sizes 8"-12", are certified to CSA B602 and are listed to ULC S102.2 exhibiting Flame/Smoke ratings of 25/50.

Firestopping Devices

Firestopping systems for System 15/XFR shall be listed to CAN4-S115 and tested with a pressure differential of 50 Pa. Listed firestopping systems are required whenever the piping penetrates a fire-rated vertical or horizontal separation.

Solvent Cements

System 15/XFR cements shall be CSA certified and meet the requirements of ASTM D2564. System 15/XFR One-Step Cement may be used for sizes 1-1/2" to 6" only. For sizes 8" to 24", System 15/XFR Two-Step cement must be used in conjunction with System 15/System XFR primer. Consideration may also be given to the use of Xirtec® 19 cement for sizes over 12". Proper solvent cementing procedures must be followed at all times.

Design and Installation

The design and installation of PVC systems shall be performed in accordance with the recommendations detailed in the Handling and Installation section of this Submittal Data Sheet, local and national regulations where applicable.

To ensure the full integrity of the completed system, all components shall be supplied by IPEX.

IPEX

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About IPEX

About the IPEX Group of Companies

As leading suppliers of thermoplastic piping systems, the IPEX Group of Companies provides our customers with some of the world's largest and most comprehensive product lines. All IPEX products are backed by more than 50 years of experience. With state-of-the-art manufacturing facilities and distribution centers across North America, we have earned a reputation for product innovation, quality, end-user focus and performance.

Markets served by IPEX group products are:

- Electrical systems
- Telecommunications and utility piping systems
- Industrial process piping systems
- Municipal pressure and gravity piping systems
- Plumbing piping systems
- PE Electrofusion systems for gas and water
- Industrial, plumbing and electrical cements
- Irrigation systems
- PVC, CPVC, PP, PVCO, ABS, PEX, FR-PVDF, NFRPP, FRPP, HDPE, PVDF and PE pipe and fittings (1/2" – 48")

Products manufactured by IPEX Inc. System 15 $^{\circ}$, System XFR $^{\circ}$, MJ Grey $^{\text{TM}}$ and Xirtec $^{\circ}$ are trademarks of IPEX Branding Inc.

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A policy of ongoing product improvement is maintained. This may result in modifications of features and/or specifications without notice.



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