

# DWV Systems

## Submittal Data Sheet



Project: \_\_\_\_\_

Engineer: \_\_\_\_\_

Contractor: \_\_\_\_\_

Submitted by: \_\_\_\_\_ Date \_\_\_\_\_

Approved by: \_\_\_\_\_ Date \_\_\_\_\_

Order No: \_\_\_\_\_ Date \_\_\_\_\_

Specification: \_\_\_\_\_ Date \_\_\_\_\_

### < STANDARDS >

#### System 15®



CSA  
B181.2



CAN/ULC  
S102.2

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.

#### System XFR®



CSA  
B181.2



Intertek  
CAN/ULC  
S102.2

#### PRODUCT SIZES

System 15®	1-1/2" – 24" (40mm – 600mm)
System XFR®	1-1/2" – 12" (40mm – 300mm)
MJ Grey™	8" – 12" (200mm – 300mm)

#### MJ Grey™

Used with System 15 and/or System XFR



CSA  
B602



Intertek  
CAN/ULC  
S102.2



**IPEX**

### PRODUCT INTRODUCTION

System 15® and System XFR® by IPEX are two 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).

#### MJ Grey™ 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.

### 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.

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

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.



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.

# DWV Systems

## 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.

#### System 15® & 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

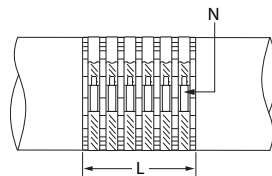
Weight differences between various materials can influence a project significantly. During handling and installation, heavier piping products may incur additional costs for the extra manpower and equipment. Other effects of heavier systems may include reduced daily production levels, and impact on worker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

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

#### Weight Comparison

Size (in.)	System 15® and System XFR®		Cast Iron	
	(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

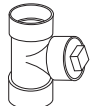



Coupling Size (inches)	Length (L) (inches)	N Number of Clamps
8	6.0	6
10	6.0	6
12	6.0	6

## System 15<sup>®</sup> Product Availability


	Dimension		Product Code
	inches	mm	
<b>System 15 DWV Pipe</b>			
Plain End 12 foot lengths	1-1/2	40	010001
	2	50	010002
	3	75	010003
	4	100	010004
	6	150	010006
	8	200	010087
	10	250	010088
	12	300	010089
	* 4	100	010016
	* 6	150	010007
	8	200	010008
	Bell End 20 foot lengths	10	250
12		300	010012
14		350	010031
16		400	010032
18		450	010034
20		500	010035
24	600	010036	


\* Sizes 4" and 6" by 20 ft. System 15 pipe sold in Western Canada only.


	Line Cleanout H x H x Gasket Plug		
	Dimension	Dimension	Product Code
	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 Threaded Plug		
	Dimension	Dimension	Product Code
	8	200	226953

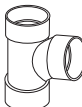
FOR USE WITH  
**MJ GREY™**

	Plug Cleanout MPT with Gasket		
	Dimension	Dimension	Product Code
	1-1/2	40	026401
	2	50	026402
	3	75	026403
	4	100	026404
	6	150	026405


	Fitting Cleanout Sp x FPT		
	Dimension	Dimension	Product Code
	2	50	026046
	3	75	026047
	4	100	026048
	6	150	026050

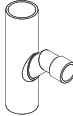
	Fitting Cleanout Sp x Gasket Threaded Plug		
	Dimension	Dimension	Product Code
	1-1/2	40	026345
	2	50	026346
	3	75	026347
	4	100	026348
	6	150	026349
	8	200	026301

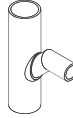
	Tube End Cleanout H x Gasket Plug		
	Dimension	Dimension	Product Code
	1-1/2	40	026291
	2	50	026298
	3	75	026299
	4	100	026300

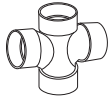
	Sanitary Tee H x H x H		
	Dimension	Dimension	Product Code
	1-1/2	40	026081
	2	50	026082
	2 x 1-1/2 x 1-1/2	50 x 40 x 40	026058
	2 x 1-1/2 x 2	50 x 40 x 50	026057
	2 x 2 x 1-1/2	50 x 50 x 40	026056
	3	75	026083
	3 x 3 x 1-1/2	75 x 75 x 40	026061
	3 x 3 x 2	75 x 75 x 50	026060
	4	100	026084
	4 x 4 x 2	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	


## System 15<sup>®</sup> Product Availability


	Dimension		Product Code
	inches	mm	
<b>Sanitary Tee</b>	Sp x H x H		
	1-1/2	40	026550
	3 x 3 x 1-1/2	75 x 75 x 40	026552
	4	100	026557


	Dimension		Product Code
	inches	mm	
<b>Sanitary Tee</b>	Sp x Sp x H		
FOR USE WITH <b>MJ GREY<sup>™</sup></b>			
	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
	12 x 6	300 x 150	226946


	Dimension		Product Code
	inches	mm	
<b>Sanitary Tee</b>	Sp x Sp x Sp		
FOR USE WITH <b>MJ GREY<sup>™</sup></b>			
	8	200	226941
	10 x 8	250 x 200	226943
	10	250	226944
	12 x 8	300 x 200	226947
	12 x 10	300 x 250	226948
	12	300	226949


	Dimension		Product Code
	inches	mm	
<b>Double Sanitary Tee</b>	H x H x H x H		
	1-1/2	40	026542
	2	50	026543
	2 x 2 x 1-1/2 x 1-1/2	50 x 50 x 40 x 40	026547
	3	75	026544
	3 x 3 x 1-1/2 x 1-1/2	75 x 75 x 40 x 40	026538
	3 x 3 x 2 x 2	75 x 75 x 50 x 50	026539
4	100	026545	


	Dimension		Product Code
	inches	mm	
<b>Sanitary Tee Side Inlet (left hand)</b>	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


	Dimension		Product Code
	inches	mm	
<b>Sanitary Tee Side Inlet (right hand)</b>	H x H x H x H SI		
	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


	Dimension		Product Code
	inches	mm	
<b>Double Sanitary Tee Side Inlet</b>	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

	Dimension		Product Code
	inches	mm	
<b>90° Elbow</b>	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	


	Dimension		Product Code
	inches	mm	
<b>90° Elbow</b>	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


	Dimension		Product Code
	inches	mm	
<b>90° Elbow</b>	Sp x Sp		
FOR USE WITH <b>MJ GREY<sup>™</sup></b>			
	8	200	226934
	10	250	226908
	12	300	226909


	Dimension		Product Code
	inches	mm	
<b>90° Reducing Elbow</b>	Closet Bend Reducing Sp x H		
	4 x 3	100 x 75	026026


	Dimension		Product Code
	inches	mm	
<b>90° Reducing Elbow</b>	H x H		
	4 x 3	100 x 75	026155


## System 15<sup>®</sup> Product Availability


	Dimension		Product Code
	inches	mm	
<b>90° Elbow</b> Extra Long Sweep	H x H		
	2	50	026157


	Dimension		Product Code
	inches	mm	
<b>60° Elbow</b>	H x H		
	1-1/2	40	026261
	2	50	026262
	3	75	026263
	4	100	026264


	Dimension		Product Code
	inches	mm	
<b>45° Elbow - Short Turn</b>	H x H		
	1-1/2	40	026241
	2	50	026242
	3	75	026243
	4	100	026244
	6	150	026245
	8	200	026246
	10	250	026247
	12	300	026248
	14	350	026249
	16	400	026250
18	450	026425	


	Dimension		Product Code
	inches	mm	
<b>45° Elbow - Short Turn</b>	Sp x H		
	1-1/2	40	026221
	2	50	026071
	3	75	026223
	4	100	026072
	6	150	026073
	8	200	026226
	10	250	026270
	12	300	026271
	14	350	026272
	16	400	026273
18	450	026274	


	Dimension		Product Code
	inches	mm	
<b>45° Elbow - Short Turn</b>	Sp x Sp		
	8	200	226910
	10	250	226911
	12	300	226912

	Dimension		Product Code
	inches	mm	
<b>22-1/2° Elbow</b>	H x H		
	1-1/2	40	026251
	2	50	026252
	3	75	026253
	4	100	026254
	6	150	026255
	8	200	026256
	10	250	026257
	12	300	026258
16	400	026260	


	Dimension		Product Code
	inches	mm	
<b>22-1/2° Elbow</b>	Sp x H		
	6	150	026651
	8	200	026652
	10	250	026653
	12	300	026654
	14	350	026655
	16	400	026656

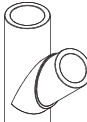
	Dimension		Product Code
	inches	mm	
<b>22-1/2° Elbow - Short Turn</b>	Sp x Sp		
	8	200	226913
	10	250	226914
	12	300	226915


	Dimension		Product Code
	inches	mm	
<b>11-1/4° Elbow</b>	H x H		
	6	150	026671
	8	200	026672
	10	250	026673
	12	300	026674
	14	350	026675
	16	400	026676

	Dimension		Product Code
	inches	mm	
<b>11-1/4° Elbow</b>	Sp x H		
	6	150	026681
	8	200	026682
	10	250	026683
	12	300	026684
	14	350	026685
	16	400	026686

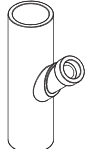
## System 15<sup>®</sup> Product Availability

	Dimension		Product Code
	inches	mm	
<b>45° Wye</b> H x H x H			
	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	

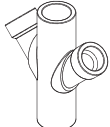
	Dimension		Product Code
	inches	mm	
<b>45° Wye</b> Sp x Sp x Sp			
	8	200	226928
	10 x 8	250 x 200	226931
	10	250	226932
	12 x 8	300 x 200	226936
	12 x 10	300 x 250	226937
	12	300	226938

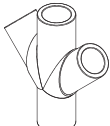
	Dimension		Product Code
	inches	mm	
<b>Double 45° Wye</b> H x H x H x H			
	1-1/2	40	026637
	2	50	026456
	2 x 2 x 1-1/2 x 1-1/2	50 x 50 x 40 x 40	026642
	3	75	026639
	3 x 3 x 1-1/2 x 1-1/2	75 x 75 x 40 x 40	026643
	3 x 3 x 2 x 2	75 x 75 x 50 x 50	026644
	4 x 4 x 3 x 3	100 x 100 x 75 x 75	026457
	6	150	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	350 x 300	026769
	16	400	026777
	16 x 4	400 x 100	026771
	16 x 6	400 x 150	026772
	16 x 8	400 x 200	026773
	16 x 10	400 x 250	026774
16 x 12	400 x 300	026775	
16 x 14	400 x 350	026776	
18 x 4	450 x 100	026778	
18 x 6	450 x 150	026779	

	Dimension	Product Code	
	inches	mm	
<b>45° Wye</b> Sp x H x H			
	3	75	026635

	Dimension		Product Code
	inches	mm	
<b>45° Wye</b> Sp x Sp x H			
	8 x 4	200 x 100	226926
	8 x 6	200 x 150	226927
	10 x 4	250 x 100	226930
	10 x 6	250 x 150	226929
	12 x 4	300 x 100	226933
	12 x 6	300 x 150	226935

FOR USE WITH  
**MJ GREY™**

	Dimension	Product Code	
	inches	mm	
<b>45° Double Wye</b> Sp x Sp x H x H			
	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

	Dimension	Product Code	
	inches	mm	
<b>45° Double Wye</b> Sp x Sp x Sp x Sp			
	8	200	226918
	10	250	226921
	10 x 8	250 x 200	226920
	12 x 8	300 x 200	226924
	12 x 10	300 x 250	226925

## System 15<sup>®</sup> Product Availability

	Dimension		Product Code
	inches	mm	
<b>Reducer Coupling</b>	H x H		
	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

	Dimension		Product Code
	inches	mm	
<b>Reducer Bushing</b>	Sp x H		
	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

	Dimension		Product Code
	inches	mm	
<b>Reducer Bushing (Extended)</b>	Sp x H		
	10 x 8	250 x 200	026962
	12 x 10	300 x 250	026966
	14 x 12	350 x 300	026971

	Dimension		Product Code
	inches	mm	
<b>Reducer Bushing (Extended)</b>	Sp x Sp		
	10 x 8	250 x 200	226950
	12 x 8	300 x 200	226951
	12 x 10	300 x 250	226952
	<small>FOR USE WITH</small> <b>MJ GREY™</b>		

	Dimension		Product Code
	inches	mm	
<b>Reducer Bushing (Dishwasher Bushing)</b>	Sp x FPT		
	1-1/2 x 1/2	40 x 12	026277
	1-1/2 x 3/4	40 x 20	026278

	Dimension		Product Code
	inches	mm	
<b>Reducer Bushing</b>	Sp x H		
	4 x 3	100 x 75	026294
	Adapts Plastic Sewer Ftg. to Plastic DWV Pipe		

	Dimension		Product Code
	inches	mm	
<b>Adapter Sleeve</b>	Sp x H		
	2	50	026310
	3	75	026311
	4	100	026312
	6	150	026313
Adapts Plastic DWV Ftg. to Plastic Sewer Pipe			

	Dimension		Product Code
	inches	mm	
<b>Male Adapter</b>	H x MPT		
	1-1/2	40	026331
	2	50	026332
	3	75	026333
	4	100	026334


	Dimension		Product Code
	inches	mm	
<b>Female Adapter</b>	H x FPT		
	1-1/2	40	026341
	2	50	026342
	3	75	026343
	4	100	026344

	Dimension		Product Code
	inches	mm	
<b>Coupling</b>	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

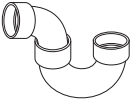
	Dimension		Product Code
	inches	mm	
<b>Plastic Sewer Hub</b>	H x H		
	4 x 3	100 x 75	026376
	Adapts Plastic Sewer Pipe to Plastic DWV Pipe		

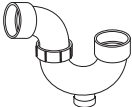


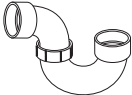
## System 15<sup>®</sup> Product Availability

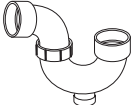
	Dimension		Product Code
	inches	mm	
<b>Plastic M-J Spigot</b>	MJ Sp x H		
	2	50	026522
	3	75	026523
	4	100	026524
	4 x 3	100 x 75	026535


Adapts M-J Cast Iron Pipe to Plastic DWV Pipe


	Dimension		Product Code
	inches	mm	
<b>P Trap</b>	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


	Dimension		Product Code
	inches	mm	
<b>P Trap</b>	Solvent Weld with Cleanout H x H		
	1-1/2	40	026441
	2	50	026442


	Dimension		Product Code
	inches	mm	
<b>P Trap</b>	Union Connection H x H		
	1-1/2	40	026443
	2	50	026444

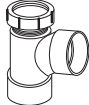
	Dimension		Product Code
	inches	mm	
<b>P Trap</b>	Union Connection with Cleanout H x H		
	1-1/2	40	026505


	Dimension		Product Code
	inches	mm	
<b>U Bend</b>	H x H		
	3	75	026498
	4	100	026499
	6	150	026503


	Dimension		Product Code
	inches	mm	
<b>Fitting Trap Adapter</b>	Plastic Nut & Washer Sp x Slip Joint		
	1-1/2	40	026304
	2	50	026305


	Dimension		Product Code
	inches	mm	
<b>Pipe Trap Adapter</b>	Plastic Nut & Washer H x Slip Joint		
	1-1/2	40	026321
	1-1/2 x 1-1/4	40 x 32	026329
	2	50	026328

	Dimension		Product Code
	inches	mm	
<b>90° Pipe Trap Adapter</b>	H x Slip Joint		
	1-1/2 x 1-1/2	40 x 40	026330


	Dimension		Product Code
	inches	mm	
<b>Sanitary Tee Trap Adapter</b>	H x H x Slip Joint		
	1-1/2	40	026179


	Dimension		Product Code
	inches	mm	
<b>Copper to DWV Pipe Adapter</b>	H x Slip Joint		
	1-1/2	40	026320
	1-1/2 x 1-1/4	40 x 32	026430
	2	50	026510


	Dimension		Product Code
	inches	mm	
<b>Tail Piece Adapter</b>	(Plastic Nut & Washer) Sp x Slip Joint		
	1-1/2	40	026555
	1-1/2 x 1-1/4	40 x 32	026556


	Dimension		Product Code
	inches	mm	
<b>Swivel Strainer Adapter</b>	H x Swivel Nut		
	1-1/2	40	026577


## System 15<sup>®</sup> Product Availability

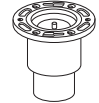
	Dimension		Product Code
	inches	mm	
<b>Closet Flange</b> One Piece Plastic Slip	4	100	026573
	4 x 3	100 x 75	026584


	Dimension		Product Code
	inches	mm	
<b>Adjustable Closet Flange</b> with Plastic Ring Sp	4 x 3 Close	100 x 75 Close	026587
			

<b>Closet Flange</b> One Piece Plastic Slip with Spigot End	4 x 3	100 x 75	026592
			


<b>45° Discharge Closet Flange</b> Adjustable with Plastic Ring Slip	4 x 3	100 x 75	026589
			

<b>Closet Flange</b> One Piece Plastic Slip with Molded Test Plate	4 x 3	100 x 75	026591
			


<b>Closet Flange Kit</b> for Concrete	4 x 3	100 x 75	026593
			
for use in Slab on Grade W.C. installations			

<b>Closet Flange</b> One Piece Plastic Slip Flush Fit	4 x 3	100 x 75	026594
			

<b>Closet Flange Spacer Ring</b>	4	100	026176
			

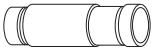
<b>Closet Flange</b> One Piece Plastic Slip Flush Fit w Molded Test Plate	4 x 3	100 x 75	026595
			

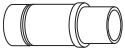
<b>Urinal Flange</b> Hub	2	50	026459
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<b>Adjustable Closet Flange</b> with Plastic Ring Slip	4 x 3	100 x 75	026586
			

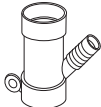
<b>Adjustable Closet Flange</b> w Plastic Ring Slip w Molded Ring Slip	4 x 3	100 x 75	026588
			

## System 15<sup>®</sup> Product Availability


	Dimension		Product Code
	inches	mm	
<b>Expansion Joint – Type 1</b> (Vertical Use Only) H x H			
	1-1/2	40	026485
	2	50	026486
	3	75	026487


	Dimension		Product Code
	inches	mm	
<b>Expansion Joint – Type 1</b> (Vertical Use Only) H x Sp End Piston			
	1-1/2	40	026491
	2	50	026492
	3	75	026384

	Dimension		Product Code
	inches	mm	
<b>Expansion Joint – Type 2</b> (Vertical Use Only) H x H			
	4	100	026489

	Dimension		Product Code
	inches	mm	
<b>Dishwasher Wye</b> H x H x Hose Barb			
	1-1/2 x 1-1/2 x 1/2	40 x 40 x 12	026495


	Dimension		Product Code
	inches	mm	
<b>Drain Grate</b> Sp			
	4	100	026482

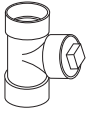
	Dimension		Product Code
	inches	mm	
<b>Slip Cap</b> H			
	1-1/2	40	026411
	2	50	026412
	3	75	026413
	4	100	026414
	6	150	026415
	8	200	026416

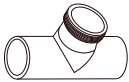
	Dimension		Product Code
	inches	mm	
<b>Polyethylene Cap</b> Slip-on Style			
	1-1/2	40	026875
	2	50	026876
	3	75	026878
	4	100	026880


Additional Fittings up to 24" diameter may be available;  
Please contact IPEX for assistance.


## System XFR® Product Availability


	Dimension		Product Code
	inches	mm	
	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		Product Code
	1-1/2	40	
	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

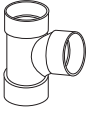
Line Cleanout	Sp x Sp x Threaded Plug		FOR USE WITH <b>MJ GREY™</b>
	8	200	526766

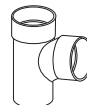
Plug Cleanout	MPT with gasket		Product Code
	1-1/2	40	
	2	50	526402
	3	75	526403
	4	100	526404
	6	150	526405

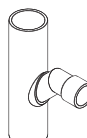
Fitting Cleanout	Sp x FPT		Product Code
	1-1/2	40	
	2	50	526046
	3	75	526047
	4	100	526048
	6	150	426050

Fitting Cleanout	Sp x Gasket Plug		Product Code
	1-1/2	40	
	2	50	526346
	3	75	526347
	4	100	526348
	6	150	526349

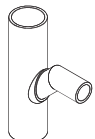
Tube End Cleanout	H x Gasket Plug		Product Code
	1-1/2	40	
	2	50	526298
	3	75	526299
	4	100	526300

Sanitary Tee	H x H x H		Product Code
	1-1/2	40	
	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 1 1/2	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	

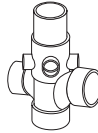
Sanitary Tee	Sp x H x H		Product Code
	1-1/2	40	
	3 x 1-1/2	75 x 40	526552
	4	100	426557

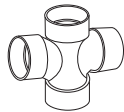
Sanitary Tee	Sp x Sp x H		FOR USE WITH <b>MJ GREY™</b>
	8 x 4	200 x 100	526926
	8 x 6	200 x 150	526998
	10 x 4	250 x 100	526997
	10 x 6	250 x 150	526758
	12 x 4	300 x 100	526761
	12 x 6	300 x 150	526762


## System XFR® Product Availability

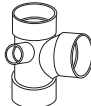
	Dimension		Product Code
	inches	mm	
<b>Sanitary Tee</b>	Sp x Sp x Sp		
	8	200	526999
	10 x 8	250 x 200	526759
	10	250	526760
	12 x 8	300 x 200	526763
	12 x 10	300 x 250	526764
	12	300	526765


FOR USE WITH  
**MJ GREY™**

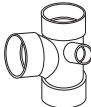
	Dimension		Product Code
	inches	mm	
<b>Double Apartment Fitting</b>	H x Sp x H x H		
	3	75	526008

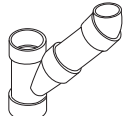
	Dimension		Product Code
	inches	mm	
<b>Double Sanitary Tee</b>	H x H x H x H		
	1-1/2	40	526542
	2	50	526543
	2 x 1-1/2	50 x 40	526547
	3	75	526544
	3 x 1-1/2	75 x 40	526538
	3 x 2	75 x 50	426539


	Dimension		Product Code
	inches	mm	
<b>90° Elbow</b>	H x H		
	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

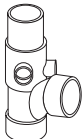
	Dimension		Product Code
	inches	mm	
<b>Sanitary Tee Side Inlet (left hand)</b>	H x H x H x H SI		
	3 x 3 x 3 x 1-1/2	75 x 75 x 75 x 40	526395
	3 x 3 x 3 x 2	75 x 75 x 75 x 50	526396


	Dimension		Product Code
	inches	mm	
<b>90° Elbow</b>	Sp x H		
	1-1/2	40	526231
	2	50	526232
	3	75	526233
	4	100	526234
	6	150	526235
	8	200	526236
	10	250	526237
	12	300	526238

	Dimension		Product Code
	inches	mm	
<b>Sanitary Tee Side Inlet (right hand)</b>	H x H x H SI x H		
	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


	Dimension		Product Code
	inches	mm	
<b>Upright Extended Wye</b>	H x x H x Sp		
	3	75	526006

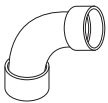
	Dimension		Product Code
	inches	mm	
<b>90° Elbow</b>	Sp x Sp		
	8	200	526967
	10	250	526968
	12	300	526970

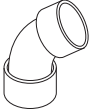
	Dimension		Product Code
	inches	mm	
<b>Single Apartment Fitting</b>	H x Sp x H		
	3	75	526007

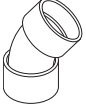
	Dimension		Product Code
	inches	mm	
<b>90° Reducing Elbow</b>	Closet Bend Reducing Sp x H		
	4 x 3	100 x 75	426026


## System XFR® Product Availability


	Dimension		Product Code
	inches	mm	
<b>90° Reducing Elbow</b>	H x H		
	4 x 3	100 x 75	526155


	Dimension		Product Code
	inches	mm	
<b>90° Elbow</b>	Extra Long Sweep H x H		
	2	50	426157


	Dimension		Product Code
	inches	mm	
<b>60° Elbow</b>	H x H		
	1-1/2	40	526261
	2	50	526262
	3	75	526253
	4	100	526264


	Dimension		Product Code
	inches	mm	
<b>45° Elbow</b>	Short Turn H x H		
	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


	Dimension		Product Code
	inches	mm	
<b>45° Elbow</b>	Short Turn Sp x H		
	1-1/2	40	526221
	2	50	526071
	3	75	526223
	4	100	526072
	6	150	526073
	8	200	526226
	10	250	526270
	12	300	526271


	Dimension		Product Code
	inches	mm	
<b>45° Elbow</b>	Short Turn Sp x Sp		
	8	200	526971
	10	250	526770
	12	300	526771

	Dimension		Product Code
	inches	mm	
<b>45° Elbow</b>	Long Turn H x H		
	6	150	426038


	Dimension		Product Code
	inches	mm	
<b>45° Elbow</b>	Long Turn Sp x H		
	6	150	426225


	Dimension		Product Code
	inches	mm	
<b>22-1/2° Elbow</b>	H x H		
	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

	Dimension		Product Code
	inches	mm	
<b>22-1/2° Elbow</b>	Sp x H		
	6	150	526651
	8	200	526652
	10	250	526653
	12	300	526654

	Dimension		Product Code
	inches	mm	
<b>22-1/2° Elbow</b>	Sp x Sp		
	8	200	526972
	10	250	526973
	12	300	526908

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	Dimension		Product Code
	inches	mm	
<b>11-1/4° Elbow</b>	H x H		
	6	150	526671
	8	200	526672
	10	250	526673
	12	300	526674

	Dimension		Product Code
	inches	mm	
<b>11-1/4° Elbow</b>	Sp x H		
	6	150	526681
	8	200	526682
	10	250	526683
	12	300	526684

## System XFR® Product Availability

	Dimension		Product Code
	inches	mm	
<b>45° Wye</b> H x 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	

	Dimension		Product Code
	inches	mm	
<b>45° Wye</b> Sp x H x H			
	3	75	426635
	3 x 1-1/2	75 x 40	426638

	Dimension		Product Code
	inches	mm	
<b>45° Wye</b> Sp x Sp x H			
	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


	Dimension		Product Code
	inches	mm	
<b>45° Wye</b> Sp x Sp x 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	300	526996


	Dimension		Product Code
	inches	mm	
<b>Double 45° Wye</b> H x H x H x H			
	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	


	Dimension		Product Code
	inches	mm	
<b>45° Double Wye</b> 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


	Dimension		Product Code
	inches	mm	
<b>45° Double Wye</b> Sp x Sp x Sp x Sp			
	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

## System XFR® Product Availability


	Dimension		Product Code
	inches	mm	
	<b>Increaser Coupling H x H</b>		
	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	


	Dimension		Product Code
	Sp x H		
	<b>Reducer Bushing Sp x H</b>		
	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


	Dimension		Product Code
	(Extended) Sp x H		
	<b>Reducer Bushing (Extended) Sp x H</b>		
	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


	Dimension		Product Code
	(Extended) Sp x Sp		
	<b>Reducer Bushing (Extended) Sp x Sp</b>		
	10 x 8	250 x 200	526981
	12 x 8	300 x 200	526767
	12 x 10	300 x 250	526768

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	Dimension		Product Code
	inches	mm	
	<b>Male Adapter H x MPT</b>		
	1-1/2	40	526331
	2	50	526332
	3	75	526333
	4	100	526334

	Dimension		Product Code
	inches	mm	
	<b>Female Adapter H x FPT</b>		
	1-1/2	40	526341
	2	50	526342
	3	75	526343
	4	100	526344

	Dimension		Product Code
	H x H		
	<b>Coupling H x H</b>		
	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	


	Dimension		Product Code
	MJ Sp x H		
	<b>Plastic MJ Spigot MJ Sp x H</b>		
	2	50	526522
	3	75	526523
	4	100	526524


Adapts M-J Cast Iron Pipe to Plastic DWV Pipe


	Dimension		Product Code
	Solvent Weld H x H		
	<b>P Trap Solvent Weld H x H</b>		
	1-1/2	40	526431
	2	50	526432
	3	75	526433
	4	100	526434

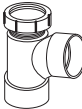


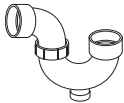
## System XFR® Product Availability


	Dimension		Product Code
	inches	mm	
<b>P Trap</b> Solvent Weld with Cleanout H x H			
	1-1/2	40	526441
	2	50	526442


	Dimension		Product Code
	inches	mm	
<b>90° Pipe Trap Adapter</b> H x Slip Joint			
	1-1/2 x 1-1/2	40 x 40	526330

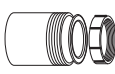
	Dimension		Product Code
	inches	mm	
<b>P Trap</b> Union Connection H x H			
	1-1/2	40	526443
	2	50	526444

	Dimension		Product Code
	inches	mm	
<b>Sanitary Tee Trap Adapter</b> H x Slip Joint x H			
	1-1/2	40	426179


	Dimension		Product Code
	inches	mm	
<b>P Trap</b> Union Connection with Cleanout H x H			
	1-1/2	40	526505

	Dimension		Product Code
	inches	mm	
<b>Copper to DWV Pipe Adapter</b> H x Slip Joint			
	1-1/2	40	426320
	1-1/2 x 1-1/4	40 x 32	426430
	2	50	426510


	Dimension		Product Code
	inches	mm	
<b>U Bend</b> H x H			
	4	100	526499
	6	150	426503

	Dimension		Product Code
	inches	mm	
<b>Tail Piece Adapter</b> Sp x Slip Joint			
	1-1/2	40	526555
	1-1/2 x 1-1/4	40 x 32	526556

Plastic Nut & Washer

	Dimension		Product Code
	inches	mm	
<b>Fitting Trap Adapter</b> Sp x Slip Joint			
	1-1/2	40	426304
	2	50	426305

Plastic Nut & Washer


	Dimension		Product Code
	inches	mm	
<b>Swivel Strainer Adapter</b> H x Swivel Nut			
	1-1/2	40	426894

	Dimension		Product Code
	inches	mm	
<b>Pipe Trap Adapter</b> H x Slip Joint			
	1-1/2	40	526321
	1-1/2 x 1-1/4	40 x 32	526329


Plastic Nut & Washer

## System XFR® Product Availability


	Dimension		Product Code
	inches	mm	
<b>Closet Flange</b> One Piece Plastic Slip	4	100	526573
	4 x 3	100 x 75	526584




	Dimension		Product Code
	inches	mm	
<b>Closet Flange</b> One Piece Plastic Slip w Spigot End	4	100	526592
	4 x 3	100 x 75	526592




	Dimension		Product Code
	inches	mm	
<b>Closet Flange</b> One Piece Plastic Slip w Molded Test Plate	4	100	526591
	4 x 3	100 x 75	526591




	Dimension		Product Code
	inches	mm	
<b>Closet Flange</b> One Piece Plastic Slip Flush Kit	4	100	426594
	4 x 3	100 x 75	426594




	Dimension		Product Code
	inches	mm	
<b>Closet Flange</b> One Piece Plastic Slip Flush Kit w Molded Test Plate	4	100	526595
	4 x 3	100 x 75	526595




	Dimension		Product Code
	inches	mm	
<b>Adjustable Closet Flange</b> with Plastic Ring Slip	4	100	526586
	4 x 3	100 x 75	526586



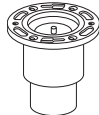
	Dimension		Product Code
	inches	mm	
<b>Adjustable Closet Flange</b> w Plastic Ring Slip w Molded Test Plate	4	100	526588
	4 x 3	100 x 75	526588




	Dimension		Product Code
	inches	mm	
<b>45° Discharge Closet Flange</b> Adjustable w Plastic Ring	4	100	426589
	4 x 3	100 x 75	426589

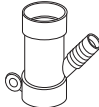



	Dimension		Product Code
	inches	mm	
<b>Closet Flange Kit</b> for Concrete	4	100	426593
	4 x 3	100 x 75	426593




for use in Slab on Grade W.C. installations

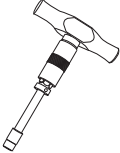
	<b>Expansion Joint - Type 1</b> (Vertical & Horizontal Use) H x H		
	H	H	Product Code
	1-1/2	40	526485
	2	50	526486
	3	75	526487
	4	100	526489
	6	150	426209
	8	200	426210
	10	250	426211
	12	300	426212

	<b>Dishwasher Wye</b> H x H x Hose Barb		
	H	H	Product Code
	1-1/2	40	526495

	<b>Slip Cap</b> H		
	H	Product Code	Product Code
	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	526418

## MJ Grey™ Product Availability

	Dimension		Product Code
	inches	mm	
<b>MJ Coupling</b>	H x H		
	8	200	094053
	10	250	094054
	12	300	094055

<b>T-Handle Torque Wrench</b>	80 in-lb	
	5/16" socket	094139

# DWV Systems

## 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.

### Cold Weather

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

### 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.

### PIPE DIAMETERS 1-1/2" – 6"

Installers have two options for these sized pipes: either One- or Two-Step Cement. IPEX System 15 and System XFR one-step 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.



#### WARNING

#### 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.**

### TESTING DRAINAGE SYSTEMS

After a system is installed and all solvent weld joints cured, the system should be pressure-tested with water before being commissioned. The test should be conducted in accordance with requirements of the local plumbing code. 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.

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.

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.

As a quick check before water testing as per Code requirements, IPEX DWV may be tested with air pressure no greater than 5 psi. Testing with air at higher pressures is strictly prohibited as it may create a hazardous work environment and endanger nearby workers.

When using an air compressor or other equipment to pressure-test the system, the pressure gauge should be closely monitored to ensure the air pressure never exceeds 5 psi. Use of compressed air or gas in the System 15/XFR pipe and fittings can result in explosive failures and cause injury or death.



#### WARNING

Take special care to avoid causing impact to the piping when testing rigid thermoplastic systems using compressed air. Impact to the system during air testing can cause failure which may result in injury or death. Conduct this test only when the ambient temperature is 10°C (50°F) or above. Pipe should never be pressurized to any more than 5 psi when using air.



#### MJ GREY TESTING

Normal testing procedures for System 15 or System XFR may be employed if using MJ Grey couplings. Maximum water test pressure shall be 10 ft. of head (4.3 psi) for all sizes, or 5.0 psi for air. Proper safety precautions and protective equipment should be employed during all testing procedures.



#### WARNING



- **NEVER** use compressed air or gas in System 15/XFR pipe and fittings at pressure no greater than 5 psi.

Use of compressed air or gas in System 15/XFR pipe and fittings can result in explosive failures and cause severe injury or death.



### 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 S102.2, 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.

#### MJ Grey™

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

### MECHANICAL EASY SPECIFICATIONS

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

	Non-Combustible Building				
	General Usage	Air Plenum	Vertical Service Spaces	High-Rise Building	Underground
System 15 DWV	P†	N	N	N	P
System XFR DWV	P	P	N	P	P
MJ Grey Coupling	P	P	N	P	P*

† 24" is not permitted

\* Permitted by Code but not recommended by IPEX

P = Permitted

N = Not Permitted

# DWV Systems

## *Building Code Considerations*

### LISTED SUMMARY

Component	Flame-Spread Rating	Smoke Developed Classification
<b>System 15®</b>		
Pipe	10	N/A
Fittings	15	N/A
<b>System XFR®</b>		
Pipe	≤ 25	≤ 50
Fittings	≤ 25	≤ 50
<b>MJ Grey™</b>		
Couplings	≤ 25	≤ 50

### **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.

### **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.**

### 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 established 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.

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