

UPVC PIPES & FITTINGS



LEADFREE



COMPLETE SOLUTION FOR COLD WATER PLUMBING

## ABOUT US

Ajay Pipes is part of an over 50 year old organization, a leader in plumbing & drainage solutions offering complete range of piping products for internal and external use. The company offers advanced engineered, value added and superior quality products through its multi-locational manufacturing, nationwide dealer network and support team.

The company has been the pioneer in

- UPVC pipe
- Reinforced suction Hose
- Reinforced Layflat Hose
- UPVC Corrugated pipes
- Handpumps

## MISSION

“To ensure customer service & satisfaction by providing high quality plastic piping solutions through a ubiquitous distribution network, spreading product awareness and constantly improving manufacturing and operational efficiencies through systems and result oriented, competent manpower resources thereby creating sustained value for all our customers and stakeholders while maintaining high ethical standards”

## CORE VALUES

- Invest in Quality of People First
- Go the Last Mile for the Customer
- Focus on Innovation & Speed
- Run Lean & Unbureaucratic
- Improve Performance every single day
- Act Honestly, with Integrity & Citizenship
- Work Hard, Oriented to Results, yet have fun

## INFRASTRUCTURE

- Factories at Dehradun, Pune and Delhi
- Certified ISO 9001, ISO 14001 and OHSAS 18001
- Pipes manufactured using latest twin screw technology
- Fittings using advanced injection molding technique
- 11 Warehouses in different parts of the country
- Well equipped Tool rooms
- Full equipped laboratories and development facilities
- 500+ strong distribution network
- Trained sales force

## OTHER DIVISIONS

- Handpumps
- Screen and Casing pipes
- Reliefline products
- Tubelight Fixtures
- Mainline electrical power outlet system
- Customised extruded profiles



DELHI OFFICE



PUNE PLANT



DEHRADUN PLANT

## AJAY MANUFACTURES COMPLETE RANGE OF:

### FEATURES AND BENEFITS

- 25% Higher Performance
- Proven hot water performance upto 93°C
- The only NSF Certified CPVC Pipes & Fittings. Manufactured from imported environment friendly virgin high performance CPVC Compounds
- Safe for drinking water and human health
- Exceptional all weather corrosion resistance
- No scaling or pitting maintains flow
- Microbial resistance
- Self extinguishing
- UV resistance
- Low thermal expansion
- High impact resistance
- Fast and Easy installation
- Consistent and reliable jointing
- Cost effective

### RANGE AVAILABLE

- CPVC Pipes – SDR 11 – ½” to 2”
- CPVC Pipes – SDR 13.5 – ½” to 2”
- CPVC Pipes – SCH 40 – 2-1/2” to 8”
- CPVC Pipes – SCH 80 – 2-1/2” to 8”
- Fittings – SDR 11 – 1/2” to 2”
- Fittings – SCH 80 – 2-1/2” to 8”
- Fittings – SCH 40 – 2-1/2” to 4”
- Ball Valves, Unions & Flanges
- Solvents & Primers



### FEATURES AND BENEFITS

- Quick & Easy Installation due to Light weight pipes & Fittings.
- Leak proof joints.
- Maintenance free systems.
- All pipe & fittings in strict compliance to standards.
- Available in Ring fit jointing & solvent fit jointing systems
- Full range of pipe & fittings
- Pipe manufactured using latest twin screw technology & fittings using latest injection molding technology.
- Corrosion & rust proof.
- Chemical resistant {Specially to most household chemicals}
- High flow rate with smooth & no scaling or depositions.

### RANGE AVAILABLE

- SWR Pipe - Solvent Fit and Ring Fit Size: 75 mm, 90 mm, 110 mm, 160 mm
- AGRI Pipe - 20 mm, 25 mm, 32 mm, 40 mm, 63 mm, 75 mm, 90 mm, 110 mm, 140 mm, 160 mm, 180 mm, 200 mm, 225 mm, 250 mm, 315 mm
- SWR Fittings - Solvent Fit and Ring Fit Type: 75 mm, 90 mm, 110 mm, 160 mm
- AGRI Fittings - 40 mm, 50 mm, 63 mm, 75 mm, 90 mm, 110 mm,
- WC & Pan Connectors
- Wash Basin & Sink Bottle Traps & P-Traps
- Air Admittance Valves
- Aerator



### FEATURES AND BENEFITS

- Freedom from leakage
- Long life
- Anti-rodent
- Easy transportation, light in weight and easy to handle
- Fast and easy installation, even in wet conditions
- Resistance to abrasion, smooth bore pipe with longer intervals between joints reduces the risk of blockage
- Resistance to high temperatures [40°C @ constant flow and 60°C @ short-term flow]
- Good Impact resistance
- Guaranteed stiffness

### RANGE AVAILABLE

- PIPES - Foam Core Type Class - SN 2/ SN 4/ SN 8 Size - 110/160/200/250/315 Fitment - Ring Fit & Solvent Fit
- FITTINGS Class - SN 4 Size - 110/160/200/250/315 Fitment - Ring Fit & Solvent Fit
- VALVES & TRAPS Non-Return Valve – 110 & 160 Bottle Gully Trap – 110 Low Back & Long Body P-Trap – 110 Swivel Adapter – 110 & 160
- INSPECTION CHAMBERS WITH ACCESSORIES Size – 315 & 450 Type: Multi – Inlet Universal Shaft – Riser Pipe Frame & Cover – Circular Type A End Plugs – 110 & 160



## WHY AJAY GREENLINE

- A) Long History of innovation and customer delight: Ajay is an over 50 year old manufacturing organization with a focus on plastic extrusion and the oldest UPVC Pipe ISI license holder. The company is highly engineering focused with a mandate to offer only the best plumbing products in the country. Our products are designed to offer:
- Better Ease of Use
  - Superior performance
  - Improved durability
- B) Manufacturing technology, Design engineering and Quality infrastructure: equipped with state-of-the-art machines and employing latest cutting edge technology, Ajay leverages its capabilities to achieve the highest performance possible from its products.
- C) Raw Materials: Ajay products are manufactured from advanced certified raw materials sourced from the most renowned US and European suppliers which help us maintain top quality and consistent performance in our products.
- D) High Quality products: products subjected to stringent quality control systems and testing not only as required by standards but beyond.
- E) Certifications and approvals: the most certified plumbing system in India having received certification from top Indian and international organizations.
- F) High performance products with several unique and performance enhancing features:
- Truly Lead-free system
  - High strength UV-R pipes with high pressure bearing capability
  - Heavy duty high pressure fittings made using "Granule Technology" for leak-proof jointing
  - Several unique design features (copyright protected) that enhance product performance and durability over any other system available in India
- G) Complete range offering:
- Sch 40 and Sch 80 pipes upto 8"
  - Sch 80 fittings
  - Ball Valves, flanges, Unions and clamps
  - Solvent cements and primers
- H) Availability: All Ajay products are available throughout the country through its network of 11 company operated warehouses and over 500 dealers and distributors.
- I) Onsite Training: a service provided by Ajay for technicians and plumbers in an attempt to continuously share and improve plumbing skills.

## AJAY GREENLINE : UNIQUE ADVANTAGES

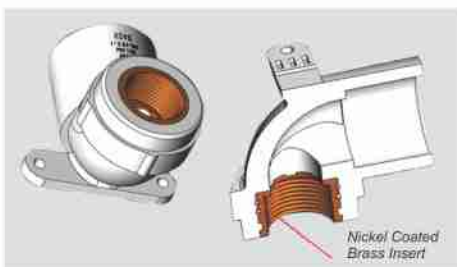


### UPVC ELBOW (90°): TWICE THE PERFORMANCE

- Curvilinear in shape & higher radius results in gradual change in direction hence smoother flow.
- More laminar the flow, lower the pressure loss
- Friction head loss half that of any competitive design. (IIT certified design)

### FIXED TRANSITION MTA: TWICE THE PERFORMANCE

- Unique/Patented design with PVC coating.
- Special designed high torque brass insert.
- No Leakage due to thermal expansion/contraction.
- PVC coating prevents water-metal contact & reduces pressure loss.
- No corrosion design

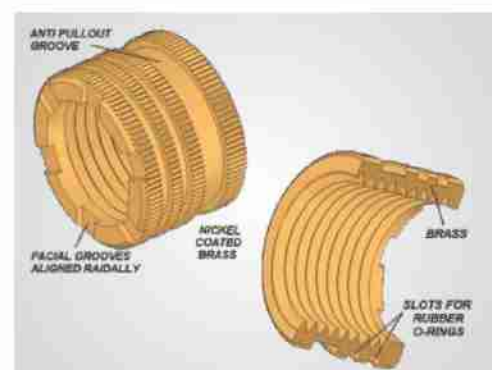


### BRASS ELBOW WITH DROP EARS: TWICE THE PERFORMANCE

- Unique design with projection known as Drop-Ear.
- Contains high torque brass insert.
- Provides reference for proper alignment against the wall.
- Eliminates need of Elbow holder.
- Can be directly screwed to wall.

### BRASS THREADED INSERTS (MALE & FEMALE): TWICE THE PERFORMANCE

- Made of special Brass.
- Specially designed grooves and deep knurling ensures superior torque bearing capability.
- EPDM O-ring prevents leakage.
- Special groove provides pull-out resistance.



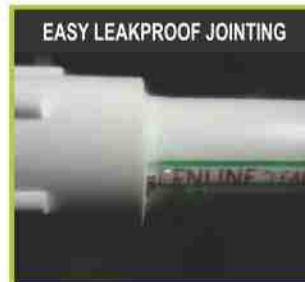
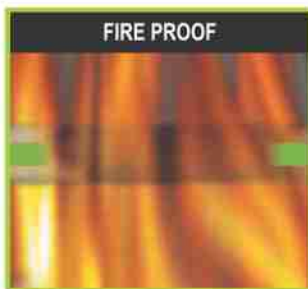
## ADVANTAGES OF UPVC

- Manufactured from environment friendly virgin UPVC Compounds
- Lead free material does not affect water quality for human health
- Does not corrode
- Does not support scaling even in hard water conditions
- High strength
- All weather UV resistance
- Does not support combustion
- Good Impact resistance
- Fast and Easy installation
- Consistent and reliable jointing
- Stringent quality control
- Cost effective with very low lifetime ownership cost

## APPLICATIONS

- Indoor and Outdoor plumbing for use upto 60 Degree C only
- Plumbing for individual residential units
- Large residential complexes
- Commercial buildings
- Hotels and Hospitals
- Swimming Pools
- RO and DM water plants
- Industrial Applications (based on chemical resistance chart)
- For other applications, kindly check with the company

Note: Not for use with compressed air and gases



## QUALITY CONTROL

All pipes and fittings at Ajay undergo stringent testing for strict control of quality in order to ensure that only the best product reaches its customers. Some of the tests that are performed in-house are:

### RAW MATERIALS:

- Cell Classification Test
- Tensile Strength
- Modulus of Elasticity in Tension
- Izod Impact Strength
- Heat Deflection Temperature under Load
- Density
- Color
- Bulk Density
- Moisture Content

### FITTINGS:

- Burst Pressure Test
- Heat Distortion Test
- Dimensions
- Visual Appearance
- Torque Test

### PIPES:

- Tensile Strength Test
- Hydrostatic Pressure Test
  - Short Term
  - Long Term
- Maximum Burst Pressure Test
- Effect on Water
- Drop Impact Test
- Flattening Test
- Heat Reversion Test
- Opacity Test
- UV Stability Test
- Visual Appearance
- Dimensions and Ovality
- Vicat Softening Temperature Test
- Resistance to Dichloromethane

### SYSTEM:

- Joint Pressure Test





## CERTIFICATIONS

TRUSTWORTHINESS INSPIRES DEPENDABILITY

### Products Certified By

 SGS – Society General Surveillance



MCGM - Municipal Corporation of Greater Mumbai



CIPET - Central Institute Plastics Engineering and Technology



PWD - Public Works Department, Tamil Nadu

### Our facilities are accredited with



ISO 9001 for Quality System Management



ISO 14001 for Environmental Management



OHSAS 18001 for Occupational Health & Safety Management



AJAY GREENLINE UPVC pipes & Fittings are manufactured in sizes from ½" to 8". The standard for the pipe & fitting is given in the table below (Refer Table No.1)

## STANDARDS (TABLE-1)

UPVC PIPES			UPVC FITTINGS		
Class of Pipe	Standard	Sizes available	Class of Fittings	Standard	Sizes available
SCH-40	ASTM D 1785	½" – 8"	SCH-40	ASTM D 2466	2-1/2" – 4"
SCH-80	ASTM D 1785	½" – 8"	SCH-80	ASTM D 2467	½" – 8"
<b>SOLVENT CEMENT</b>	<b>ASTM D 2564</b>		<b>THREADED FITTINGS</b>	<b>ASTM D 2464</b>	<b>½" – 4"</b>

(Threads as per IS 554)

## BASIC PROPERTIES OF UPVC (TABLE-2)

GENERAL	VALUE	TEST METHOD
Cell Classification	12454	ASTM D1784
Maximum Service Temp.	60°C	
Color	White	
Specific Gravity, (g/cu.cm @ 23°C)	1.35 to 1.50	ASTM D792
Water Absorption % increase 24 hrs @ 25°C	0.05	ASTM D570
Hardness, Shore D	80 –85	ASTM D785
Hazen Williams Factor	C =150	
MECHANICAL		
Tensile Strength, psi @ 23°C (min.)	7,000	ASTM D638
Tensile Modulus of Elasticity, psi @ 23°C (min.)	400,000	ASTM D638
Flexural Strength, psi @ 23°C	14,450	ASTM D790
Flexural Modulus, psi @ 23°C	360,000	ASTM D790
Compressive Strength, psi @ 23°C	9,600	ASTM D695
Izod Impact, notched, ft-lb/in @ 23°C	0.65	ASTM D256
THERMAL		
Coefficient of Linear Expansion (in/in/°F)	$2.9 \times 10^{-5}$	ASTM D696
Thermal Conductivity BTU/in/hr/ft.2/°F	1.20	ASTM C177
Heat Deflection Temperature Under Load (°C) (264 psi, annealed)	70	ASTM D648
Specific Heat, Cal./°C/gm	0.25	ASTM D2766
ELECTRICAL		
Dielectric Strength, volts/mil	1,413	ASTM D149
Dielectric Constant, 60Hz, 30°F	3.70	ASTM D150
Volume Resistivity, ohm/cm @ 95°C	$1.2 \times 10^{12}$	ASTM D257
FIRE PERFORMANCE		
Flammability Rating	V-0	UL-94
Burning Rate (in/min)	Self Extinguishing	
Limiting Oxygen Index (LOI)	43	ASTM D2863

## TECHNICAL DETAILS (TABLE-3)

Dimensional details & Tolerances for UPVC Pipes SCH-40 & SCH-80 conforming to ASTM D 1785 - 06

Nominal Pipe Size		Outside Diameter (mm)		Wall thickness (mm) min.	
Inch	mm	Average	Tolerance	SCH-40	SCH-80
½"	15	21.34	±0.10	2.77	3.73
¾"	20	26.67	±0.10	2.87	3.91
1"	25	33.40	±0.13	3.38	4.55
1-¼"	32	42.16	±0.13	3.56	4.85
1-½"	40	48.26	±0.15	3.68	5.08
2"	50	60.32	±0.15	3.91	5.54
2-½"	65	73.02	±0.18	5.16	7.01
3"	80	88.90	±0.20	5.49	7.62
4"	100	114.30	±0.23	6.02	8.56
6"	150	168.28	±0.28	7.11	10.97
8"	200	219.08	±0.38	8.18	12.70

## WORKING PRESSURE RATING (Kg/cm<sup>2</sup>) (TABLE-4)

TEMP.	PIPE SIZE	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"	4"	6"	8"
23°C	SCH40	42.22	33.75	31.61	26.00	23.25	19.68	21.11	18.25	15.50	12.64	11.00
	SCH80	59.75	48.54	44.25	36.61	33.04	28.14	29.57	26.00	22.84	19.68	17.20
27°C	SCH40	37.15	29.70	27.82	22.88	20.46	17.32	18.57	16.06	13.64	11.13	9.68
	SCH80	52.58	42.71	38.94	32.21	29.07	24.77	26.02	22.88	20.10	17.32	15.10
32°C	SCH40	31.66	25.31	23.71	19.50	17.44	14.76	15.83	13.69	11.62	9.48	8.25
	SCH80	44.82	36.40	33.19	27.46	24.78	21.11	22.18	19.50	17.13	14.76	12.90
38°C	SCH40	26.17	20.93	19.60	16.12	14.41	12.20	13.09	11.32	9.61	7.84	6.82
	SCH80	37.05	30.09	27.44	22.70	20.48	17.45	18.33	16.12	14.16	12.20	10.70
43°C	SCH40	21.11	16.88	15.81	13.00	11.62	9.84	10.55	9.13	7.75	6.32	5.61
	SCH80	29.88	24.27	22.13	18.30	16.52	14.07	14.79	13.00	11.42	9.84	8.80
49°C	SCH40	16.89	13.50	12.64	10.40	9.30	7.87	8.44	7.30	6.20	5.06	4.40
	SCH80	23.90	19.42	17.70	14.64	13.22	11.26	11.83	10.40	9.14	7.87	6.90
54°C	SCH40	12.66	10.13	9.48	7.80	6.97	5.90	6.33	5.48	4.65	3.79	3.41
	SCH80	17.93	14.56	13.28	10.98	9.91	8.44	8.87	7.80	6.85	5.90	5.30
60°C	SCH40	9.29	7.43	6.95	5.72	5.11	4.33	4.64	4.02	3.41	2.78	2.42
	SCH80	13.15	10.68	9.74	8.05	7.27	6.19	6.51	5.72	5.03	4.33	3.80

Product name	Item Code	Size	
		Inch	MM

UPVC SCH 40 PIPE (3 Mtr.)



FGUPSC400315	1/2"	15
FGUPSC400320	3/4"	20
FGUPSC400325	1"	25
FGUPSC400332	1-1/4"	32
FGUPSC400340	1-1/2"	40
FGUPSC400350	2"	50
FGUPSC400365	2-1/2"	65
FGUPSC400380	3"	80
FGUPSC403100	4"	100
FGUPSC403150	6"	150
FGUPSC403200	8"	200

UPVC SCH 40 PIPE (6 Mtr.)



FGUPSC400615	1/2"	15
FGUPSC400620	3/4"	20
FGUPSC400625	1"	25
FGUPSC400632	1-1/4"	32
FGUPSC400640	1-1/2"	40
FGUPSC400650	2"	50
FGUPSC400665	2-1/2"	65
FGUPSC400680	3"	80
FGUPSC406100	4"	100
FGUPSC406150	6"	150
FGUPSC406200	8"	200

UPVC SCH 80 PIPE (3 Mtr.)



FGUPSC800315	1/2"	15
FGUPSC800320	3/4"	20
FGUPSC800325	1"	25
FGUPSC800332	1-1/4"	32
FGUPSC800340	1-1/2"	40
FGUPSC800350	2"	50
FGUPSC800365	2-1/2"	65
FGUPSC800380	3"	80
FGUPSC803100	4"	100
FGUPSC803150	6"	150
FGUPSC803200	8"	200

UPVC SCH 80 PIPE (6 Mtr.)



FGUPSC800615	1/2"	15
FGUPSC800620	3/4"	20
FGUPSC800625	1"	25
FGUPSC800632	1-1/4"	32
FGUPSC800640	1-1/2"	40
FGUPSC800650	2"	50
FGUPSC800665	2-1/2"	65
FGUPSC800680	3"	80
FGUPSC806100	4"	100
FGUPSC806150	6"	150
FGUPSC806200	8"	200

UPVC TEE SCH 80



FGU8TEE00015	1/2"	15
FGU8TEE00020	3/4"	20
FGU8TEE00025	1"	25
FGU8TEE00032	1-1/4"	32
FGU8TEE00040	1-1/2"	40
FGU8TEE00050	2"	50
FGU8TEE00065	2-1/2"	65
FGU8TEE00080	3"	80
FGU8TEE00100	4"	100
TGU8TEE00150	6"	150

Product name	Item Code	Size	
		Inch	MM

UPVC Elbow 45° SCH 80



FGU8ELB45015	1/2"	15
FGU8ELB45020	3/4"	20
FGU8ELB45025	1"	25
FGU8ELB45032	1-1/4"	32
FGU8ELB45040	1-1/2"	40
FGU8ELB45050	2"	50
FGU8ELB45065	2-1/2"	65
FGU8ELB45080	3"	80
FGU8ELB45100	4"	100
TGU8ELB45150	6"	150

UPVC SOCKET/ COUPLERS SCH 80



FGU8CUP00015	1/2"	15
FGU8CUP00020	3/4"	20
FGU8CUP00025	1"	25
FGU8CUP00032	1-1/4"	32
FGU8CUP00040	1-1/2"	40
FGU8CUP00050	2"	50
FGU8CUP00065	2-1/2"	65
FGU8CUP00080	3"	80
FGU8CUP00100	4"	100
FGU8CUP00150	6"	150
FGU8CUP00200	8"	200

UPVC REDUCER BUSHING SCH 80



FGU8BU002015	3/4" x 1/2"	20x15
FGU8BU002515	1" x 1/2"	25x15
FGU8BU002520	1" x 3/4"	25x20
FGU8BU003215	1-1/4" x 1/2"	32x15
FGU8BU003220	1-1/4" x 3/4"	32x20
FGU8BU003225	1-1/4" x 1"	32x25
FGU8BU004015	1-1/2" x 1/2"	40x15
FGU8BU004020	1-1/2" x 3/4"	40x20
FGU8BU004025	1-1/2" x 1"	40x25
FGU8BU004032	1-1/2" x 1-1/4"	40x32
FGU8BU005015	2" x 1/2"	50x15
FGU8BU005020	2" x 3/4"	50x20
FGU8BU005025	2" x 1"	50x25
FGU8BU005032	2" x 1-1/4"	50x32
FGU8BU005040	2" x 1-1/2"	50x40
FGU8BU006532	2 1/2" x 1 1/4"	65X32
FGU8BU006540	2-1/2" x 1-1/2"	65x40
FGU8BU006550	2-1/2" x 2"	65x50
FGU8BU008040	3" x 1-1/2"	80x40
FGU8BU008050	3" x 2"	80x50
FGU8BU008065	3" x 2-1/2"	80x65
FGU8BU010050	4" x 2"	100x50
FGU8BU010065	4" x 2-1/2"	100x65
FGU8BU010080	4" x 3"	100x80
TGU8BU015080	6" x 3"	150x80
TGU8BU150100	6" x 4"	150x100




UPVC FLANGE SCH 80




FGU8TSFL0025	1"	25
FGU8TSFL0032	1 1/4"	32
FGU8TSFL0040	1 1/2"	40
FGU8TSFL0050	2"	50
FGU8TSFL0065	2-1/2"	65
FGU8TSFL0080	3"	80
FGU8TSFL0100	4"	100
TGU8TSFL0150	6"	150

Product name	Item Code	Size	
		Inch	MM


UPVC Elbow 90° SCH 80

	FGU8ELB90015	1/2"	15
	FGU8ELB90020	3/4"	20
	FGU8ELB90025	1"	25
	FGU8ELB90032	1-1/4"	32
	FGU8ELB90040	1-1/2"	40
	FGU8ELB90050	2"	50
	FGU8ELB90065	2-1/2"	65
	FGU8ELB90080	3"	80
	FGU8ELB90100	4"	100
	TGU8ELB90150	6"	150


UPVC FTA SCH 80

	FGU8FTAF0015	1/2"	15
	FGU8FTAF0020	3/4"	20
	FGU8FTAF0025	1"	25
	FGU8FTAF0032	1-1/4"	32
	FGU8FTAF0040	1-1/2"	40
	FGU8FTAF0050	2"	50
	FGU8FTAF2015	3/4" x 1/2"	20x15
	FGU8FTAF0065	2-1/2"	65
	FGU8FTAF0080	3"	80
	FGU8FTAF0100	4"	100

UPVC MTA SCH 80

	FGU8MTAF0015	1/2"	15
	FGU8MTAF0020	3/4"	20
	FGU8MTAF0025	1"	25
	FGU8MTAF0032	1-1/4"	32
	FGU8MTAF0040	1-1/2"	40
	FGU8MTAF0050	2"	50
	FGU8MTAF2015	3/4" x 1/2"	20x15
	FGU8MTAF0065	2-1/2"	65
	FGU8MTAF0080	3"	80
	FGU8MTAF0100	4"	100


UPVC END CAP SCH 80

	FGU8ECAP0015	1/2"	15
	FGU8ECAP0020	3/4"	20
	FGU8ECAP0025	1"	25
	FGU8ECAP0032	1-1/4"	32
	FGU8ECAP0040	1-1/2"	40
	FGU8ECAP0050	2"	50
	FGU8ECAP0065	2-1/2"	65
	FGU8ECAP0080	3"	80
	FGU8ECAP0100	4"	100
	TGU8ECAP0150	6"	150

UPVC UNION SCH 80

	FGU8UNION015	1/2"	15
	FGU8UNION020	3/4"	20
	FGU8UNION025	1"	25
	FGU8UNION032	1-1/4"	32
	FGU8UNION040	1-1/2"	40
	FGU8UNION050	2"	50
	TGU8UNION065	2 1/2"	65
	TGU8UNION080	3"	80
	TGU8UNION100	4"	100

UPVC REDUCING ELBOW SCH 80

	FGU8ELB92015	3/4" x 1/2"	20x15
	FGU8ELB92515	1" x 1/2"	25x15
	FGU8ELB92520	1" x 3/4"	25x20

Product name	Item Code	Size	
		Inch	MM


UPVC REDUCER COUPLING/SOCKET SCH 80

	FGU8CUP02015	3/4" x 1/2"	20x15
	FGU8CUP02515	1" x 1/2"	25x15
	FGU8CUP02520	1" x 3/4"	25x20
	FGU8CUP03215	1-1/4" x 1/2"	32x15
	FGU8CUP03220	1-1/4" x 3/4"	32x20
	FGU8CUP03225	1-1/4" x 1"	32x25
	FGU8CUP04015	1-1/2" x 1/2"	40x15
	FGU8CUP04020	1-1/2" x 3/4"	40x20
	FGU8CUP04025	1-1/2" x 1"	40x25
	FGU8CUP04032	1-1/2" x 1-1/4"	40x32
	FGU8CUP05015	2" x 1/2"	50x15
	FGU8CUP05020	2" x 3/4"	50x20
	FGU8CUP05025	2" x 1"	50x25
	FGU8CUP05032	2" x 1-1/4"	50x32
	FGU8CUP05040	2" x 1-1/2"	50x40


UPVC REDUCING TEE SCH 80

	FGU8TEE02015	3/4" x 3/4" x 1/2"	20x20x15
	FGU8TEE02515	1" x 1" x 1/2"	25x25x15
	FGU8TEE02520	1" x 1" x 3/4"	25x25x20
	FGU8TEE03215	1-1/4" x 1-1/4" x 1/2"	32x32x15
	FGU8TEE03220	1-1/4" x 1-1/4" x 3/4"	32x32x20
	FGU8TEE03225	1-1/4" x 1-1/4" x 1"	32x32x25
	FGU8TEE04015	1-1/2" x 1-1/2" x 1/2"	40x40x15
	FGU8TEE04020	1-1/2" x 1-1/2" x 3/4"	40x40x20
	FGU8TEE04025	1-1/2" x 1-1/2" x 1"	40x40x25
	FGU8TEE04032	1-1/2" x 1-1/2" x 1-1/4"	40x40x32
	FGU8TEE05015	2" x 2" x 1/2"	50x50x15
	FGU8TEE05020	2" x 2" x 3/4"	50x50x20
	FGU8TEE05025	2" x 2" x 1"	50x50x25
	FGU8TEE05032	2" x 2" x 1-1/4"	50x50x32
	FGU8TEE05040	2" x 2" x 1-1/2"	50x50x40
	FGU8TEE06525	2 1/2" x 2 1/2" x 1"	65x65x25
	FGU8TEE06532	2 1/2" x 2 1/2" x 1 1/4"	65x65x32
	FGU8TEE06540	2 1/2" x 2 1/2" x 1 1/2"	65x65x40
	FGU8TEE06550	2 1/2" x 2 1/2" x 2"	65x65x50
	FGU8TEE08025	3" x 3" x 1"	80x80x25
	FGU8TEE08032	3" x 3" x 1 1/4"	80x80x32
	FGU8TEE08040	3" x 3" x 1 1/2"	80x80x40
	FGU8TEE08050	3" x 3" x 2"	80x80x50
	FGU8TEE10032	4" x 4" x 1 1/4"	100x100x32
	FGU8TEE10040	4" x 4" x 1 1/2"	100x100x40
FGU8TEE10050	4" x 4" x 2"	100x100x50	

UPVC BRASS FTA SCH 80


	FGUTFTAFW015	1/2"	15
	FGUTFTAFW020	3/4"	20
	FGUTFTAFW025	1"	25
	FGUTFTAFW032	1-1/4"	32
	FGUTFTAFW040	1-1/2"	40
	FGUTFTAFW050	2"	50
	FGUTFTAW2015	3/4" x 1/2"	20x15
	FGUTFTAW2515	1" x 1/2"	25x15
	FGUTFTAF0065	2 1/2"	65
	FGUTFTAF0080	3"	80
FGUTFTAF0100	4"	100	

UPVC BRASS ELBOW SCH 80

	FGUTELBW1515	1/2" x 1/2"	15x15
	FGUTELBW2015	3/4" x 1/2"	20x15

Product name	Item Code	Size	
		Inch	MM

**UPVC BRASS MTA SCH 80**

	FGUTMTAFW015	1/2"	15
	FGUTMTAFW020	3/4"	20
	FGUTMTAFW025	1"	25
	FGUTMTAFW032	1-1/4"	32
	FGUTMTAFW040	1-1/2"	40
	FGUTMTAFW050	2"	50
	FGUTMTAW2015	3/4" x 1/2"	20x15
	FGUTMTAW2515	1"x1/2"	25x15
	FGUTMTAF0065	2 1/2"	65
	FGUTMTAF0080	3"	80
FGUTMTAF0100	4"	100	

**BRASS ELBOW Without Drop Ear SCH 80**

	FGUTELWE1515	1/2" x 1/2"	15x15
	FGUTELWE2015	3/4" x 1/2"	20x15
	FGUTELWE2020	3/4" x 3/4"	20x20
	FGUTELWE2515	1" x 1/2"	25x15
	FGUTELWE2520	1" x 3/4"	25x20
	*FGUTELWE2525	1" x 1"	25x25

**UPVC BRASS TEE SCH 80**

	FGUTTEEW1515	1/2" x 1/2" x 1/2"	15x15x15
	FGUTTEEW2015	3/4" x 3/4" x 1/2"	20x20x15
	FGUTTEEW2020	3/4" x 3/4" x 3/4"	20x20x20
	FGUTTEEW2515	1" x 1" x 1/2"	25x25x15
	*FGUTTEEW2525	1" x 1" x 1"	25x25x25


**UPVC TANK NIPPLE SCH 80**

	FGU8TNPL0015	1/2"	15
	FGU8TNPL0020	3/4"	20
	FGU8TNPL0025	1"	25
	FGU8TNPL0032	1-1/4"	32
	FGU8TNPL0040	1-1/2"	40
	FGU8TNPL0050	2"	50

**UPVC TANK NIPPLE (SPIGOT END) SCH 80**

	FGUFABTNPL15	1/2"	15
	FGUFABTNPL20	3/4"	20
	FGUFABTNPL25	1"	25
	FGUFABTNPL32	1-1/4"	32
	FGUFABTNPL40	1-1/2"	40


**UPVC BALL VALVE SCH80 (NSF APPROVED)**

	TGUBVALVE015	1/2"	15
	TGUBVALVE020	3/4"	20
	TGUBVALVE025	1"	25
	TGUBVALVE032	1-1/4"	32
	TGUBVALVE040	1-1/2"	40
	TGUBVALVE050	2"	50
	TGUBVALVE065	2-1/2"	65
	TGUBVALVE080	3"	80
	TGUBVALVE100	4"	100

**UPVC BALL VALVE SCH80 (NON-NSF)**

	TGUBVASPD015	1/2"	15
	TGUBVASPD020	3/4"	20
	TGUBVASPD025	1"	25
	TGUBVASPD032	1-1/4"	32
	TGUBVASPD040	1-1/2"	40
	TGUBVASPD050	2"	50

**UPVC BALL VALVE (LONG HANDLE) [2 Pcs]**

	TGUBVLHSD015	1/2"	15
	TGUBVLHSD020	3/4"	20
	TGUBVLHSD025	1"	25

Product name	Item Code	Size	
		Inch	MM

**CROSS**

	TGU8CROSS015	1/2"	15
	TGU8CROSS020	3/4"	20
	TGU8CROSS025	1"	25
	TGU8CROSS032	1-1/4"	32
	TGU8CROSS040	1-1/2"	40
	TGU8CROSS050	2"	50

**UPVC PIPE CLAMP SCH 80**

	TGUCLAMPMT15	1/2"	15
	TGUCLAMPMT20	3/4"	20
	TGUCLAMPMT25	1"	25
	TGUCLAMPMT32	1-1/4"	32
	TGUCLAMPMT40	1-1/2"	40
	TGUCLAMPMT50	2"	50


**UPVC LONG BEND SCH 80**

	FGU8FLNGBD15	1/2"	15
	FGU8FLNGBD20	3/4"	20
	FGU8FLNGBD25	1"	25
	FGU8FLNGBD32	1-1/4"	32
	FGU8FLNGBD40	1-1/2"	40
	FGU8FLNGBD50	2"	50

**UPVC STEP OVER BEND SCH 80**

	FGU8FSTPBD15	1/2"	15
	FGU8FSTPBD20	3/4"	20
	FGU8FSTPBD25	1"	25
	FGU8FSTPBD32	1-1/4"	32
	FGU8FSTPBD40	1-1/2"	40

**UPVC Elbow 45° SCH 40**

	FGU4ELB45065	2 1/2"	65
	FGU4ELB45080	3"	80
	FGU4ELB45100	4"	100

**UPVC TEE SCH 40**

	FGUSH4TEE065	2 1/2"	65
	FGUSH4TEE080	3"	80
	FGUSH4TEE100	4"	100

**UPVC SOCKET/ COUPLER SCH 40**

	FGU4CUP00065	2 1/2"	65
	FGU4CUP00080	3"	80
	FGU4CUP00100	4"	100

**UPVC Elbow 90° SCH 40**

	FGU4ELB90065	2 1/2"	65
	FGU4ELB90080	3"	80
	FGU4ELB90100	4"	100

**UPVC SOLVENT CEMENT**

	TGUPSOLHC050	50 ML [Tube]
	TGUPSOLHC118	118 ML [Can]
	TGUPSOLHC237	237 ML [Can]
	TGUPSOLHC473	473 ML [Can]
	TGUPSOLHC946	946 ML [Can]

**HEAVY DUTY GRAY SOLVENT CEMENT**

	TGUPINDSL473	473 ML [Can]
	TGUPINDSL946	946 ML [Can]

**PURPLE PRIMER**

	TGPRIMER0473	473 ML [Can]
	TGPRIMER0946	946 ML [Can]

\* Coming Soon

## AJAY GREENLINE INSTALLATION GUIDELINES

- Cut pipe straight (very important). This will allow pipe to bottom into the socket.
- Remove burr (shaving), use clean dry cloth or knife. Do not use abrasive material.
- Clean pipe and fitting & ensure no dirt, grease or any other foreign matter.
- Check dry fit. Pipe should easily go into the socket 1/3 to 2/3 of the way before any resistance is felt. This is commonly referred to as interference fit. If pipe goes to the bottom of the fitting without any resistance (interference) ensure fitting is correct size. If it is not correct size get another fitting.
- Mark the socket depth on the pipe with the marker
- Apply a thin coat of cement into the fittings socket and a full even coat on the pipe till the mark depth of socket bottom Do not puddle cement in socket.
- For sizes above 2 inch AJAY recommends jointing with purple primer & Heavy duty gray solvent cement.
- Insert pipe into the socket quickly while cement is still fluid (wet), if cement has dried, re-coat pipe and fitting. Twist pipe quarter turn, this will allow cement to cover any dry spot. Make sure pipe goes all the way to the bottom of the fitting.
- Hold pipe and fitting together (30 second) to make sure pipe does not push out.
- Wipe off excess cement with clean dry cloth.
- Allow cement to cure before pressure testing. Curing time is dependent upon temperature, humidity etc. For curing time kindly refer Table No-5.



## THREAD SEALANT

- Threaded UPVC Fittings (Plastic & Brass) with tapered pipe threads (e.g. male threaded adapters) must be used with a suitable thread sealant to ensure leak proof joints. Over the years, PTFE (Teflon or equivalent) tape has been preferred thread sealant, it is still the most widely accepted and approved sealant. Some paste sealant can affect UPVC Fittings, therefore only sealants recommended for use with UPVC by thread sealant should be used.
- Don't use cloth strings or jute to seal the threads.
- Don't over tighten.



## AJAY GREENLINE AVERAGE JOINT CURING TIME FOR UPVC SOLVENT CEMENT (TABLE-5)

Pipe Diameter / Pressure

Assembly Temp.	1/2" to 1 1/4"		1 1/2" to 3"		4" to 5"		6" to 8"	
	Below 12kgf/cm <sup>2</sup>	Above 12kgf/cm <sup>2</sup>	Below 12kgf/cm <sup>2</sup>	Above 12kgf/cm <sup>2</sup>	Below 12kgf/cm <sup>2</sup>	Above 12kgf/cm <sup>2</sup>	Below 12kgf/cm <sup>2</sup>	Above 12kgf/cm <sup>2</sup>
15° to 37°C	1 hour	6 hours	2 hours	12 hours	6 hours	18 hours	8 hours	24 hours
4° to 15°C	2 hours	12 hours	4 hours	24 hours	12 hours	36 hours	16 hours	48 hours
-6° to 4°C	6 hours	36 hours	12 hours	72 hours	36 hours	96 hours	72 hours	9 days
-18° to -6°C	8 hours	48 hours	16 hours	96 hours	48 hours	8 days	96 hours	12 days

- The joint should not be pressure tested until it has cured. The exact curing time varies with temperature, humidity and pipe size.
- For relative humidity above 60%, allow 50% more cure time.
- The above data are based on laboratory tests and are intended as guidelines.

## APPROX. NUMBER OF JOINTS THAT CAN BE MADE WITH SOLVENT CEMENT (TABLE-6)

Nominal Size	Inch	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
	mm	15	20	25	32	40	50
Approximate no. of joints / Can	50ml	35	23	15	14	10	07
	118ml.	82	55	34	33	23	17
	237ml.	164	110	68	66	46	34
	473ml.	328	220	136	132	92	68
	946ml.	656	440	272	264	184	136

## PRESSURE TESTING GUIDELINES

- Prior to testing, safety precautions should be instituted to protect personal & property in case of test failure.
- Conduct pressure testing with water only.
- The piping system should be adequately anchored to limit movement. Water under pressure exerts thrust forces in piping systems. Thrust blocking should be provided at changes in direction, change in size and at dead end.
- The piping system should be slowly filled with water, taking care to prevent surge and air entrapment. The flow velocity should not exceed 1 foot per second.
- All trapped air must be slowly released. Vent must be provided at all high points of the piping system. All valves and air relief mechanisms should be opened so that the air can be vented while system is being filled.
- Once an installation is completed and cured the system should be filled with water and pressure tested in accordance with local code requirements. However, care must be taken to ensure the pressure does not exceed the working pressure of the lowest component in the system (valves, unions, flanges, threaded parts, etc.)
- The pressure test should not exceed one hour. Any leaking joints or pipe must be cut out and replaced and the line recharged and retested using the same procedure.

## HORIZONTAL & VERTICAL SUPPORT SPACING (TABLE-7)

Horizontal & vertical runs of Ajay Greenline pipe should be supported by pipe clamps or by hangers located on the horizontal connection close to the riser. Hangers should not have rough or sharp edges.

SCHEDULE - 40 Recommended Support Spacing (in feet)							SCHEDULE - 80 Recommended Support Spacing (in feet)						
Nominal Pipe Size		Temperature					Nominal Pipe Size		Temperature				
Inch	mm	16°C	27°C	38°C	50°C	60°C	Inch	mm	16°C	27°C	38°C	50°C	60°C
1/2"	15	4 1/2	4 1/2	4	2 1/2	2 1/2	1/2"	15	5	4 1/2	4 1/2	3	2 1/2
3/4"	20	5	4 1/2	4	2 1/2	2 1/2	3/4"	20	5 1/2	5	4 1/2	3	2 1/2
1"	25	5 1/2	5	4 1/2	3	2 1/2	1"	25	6	5 1/2	5	3 1/2	3
1 1/4"	32	5 1/2	5 1/2	5	3	3	1 1/4"	32	6	6	5 1/2	3 1/2	3
1 1/2"	40	6	5 1/2	5	3 1/2	3	1 1/2"	40	6 1/2	6	5 1/2	3 1/2	3 1/2
2"	50	6	5 1/2	5	3 1/2	3	2"	50	7	6 1/2	6	4	3 1/2
2 1/2"	65	6 1/2	6	5 1/2	4	3	2 1/2"	65	7 1/2	7 1/2	6 1/2	4 1/2	4
3"	80	7	7	6	4	3 1/2	3"	80	8	7 1/2	7	4 1/2	4
4"	100	7 1/2	7	6 1/2	4 1/2	4	4"	100	9	8 1/2	7 1/2	5	4 1/2
6"	150	8 1/2	8	7 1/2	5	4 1/2	6"	150	10	9 1/2	8 1/2	6 1/2	5 1/2
8"	200	9 1/2	9	8 1/2	5 1/2	5	8"	200	11	10	9 1/2	7 1/2	6

# FRICION HEAD LOSS AND FLOW VELOCITY FOR SCH 40 & 80 UPVC PIPE (TABLE-8)

[Friction head loss (pressure loss) in PSI per 30 mtr. of pipe]

NOTICE: Flow velocity should not exceed 91 mtr./min. Velocities in excess of 91 mtr./min. may result in system failure

Liter Per Minute	2-½ in. SCH40		2-½ in. SCH80		3 in. SCH40		3 in. SCH80		4 in. SCH40		4 in. SCH80		6 in. SCH40		6 in. SCH80		8 in. SCH40		8 in. SCH80	
	Velocity Meter Per Minute	Friction Loss (PSI)	Velocity Meter Per Minute	Friction Loss (PSI)	Velocity Meter Per Minute	Friction Loss (PSI)	Velocity Meter Per Minute	Friction Loss (PSI)	Velocity Meter Per Minute	Friction Loss (PSI)	Velocity Meter Per Minute	Friction Loss (PSI)	Velocity Meter Per Minute	Friction Loss (PSI)	Velocity Meter Per Minute	Friction Loss (PSI)	Velocity Meter Per Minute	Friction Loss (PSI)	Velocity Meter Per Minute	Friction Loss (PSI)
19	5.5	0.0	7.1	0.0	4.0	0.0	4.6	0.0												
27	9.0	0.0	9.9	0.0	5.7	0.0	6.4	0.0												
38	12.4	0.0	14.3	0.1	8.1	0.0	9.2	0.0												
57	18.8	0.1	21.4	0.1	12.1	0.0	13.7	0.0	4 in. SCH40	4 in. SCH80										
76	25.1	0.1	28.5	0.2	16.1	0.1	18.3	0.1	9.3	0.0	10.4	0.0								
95	31.3	0.2	35.7	0.3	20.1	0.1	22.9	0.1	11.7	0.0	13.2	0.0								
114	37.5	0.3	42.8	0.4	24.3	0.1	27.3	0.1	14.1	0.0	15.7	0.0								
133	43.7	0.4	50.0	0.5	28.4	0.1	31.8	0.2	16.3	0.0	18.3	0.0								
152	50.3	0.5	57.1	0.7	32.4	0.2	36.4	0.2	18.7	0.0	21.0	0.1								
170	56.4	0.6	64.2	0.9	36.4	0.2	41.0	0.3	21.0	0.1	23.6	0.1	6 in. SCH40	6 in. SCH80						
189	62.6	0.8	71.4	1.1	40.4	0.3	45.6	0.4	23.4	0.1	26.2	0.1	10.2	0.0	11.5	0.0				
227	75.0	1.1	85.6	1.5	48.5	0.4	54.7	0.5	28.0	0.1	31.5	0.1	12.3	0.0	13.7	0.0				
265	87.7	1.4	99.9	2.0	56.5	0.5	63.9	0.7	32.8	0.1	36.8	0.2	14.5	0.0	16.1	0.0				
284	93.9	1.6	107.1	2.2	60.6	0.6	68.4	0.7	35.1	0.2	39.3	0.2	15.4	0.0	17.2	0.0				
303	100.1	1.8	114.2	2.5	64.6	0.6	73.0	0.8	37.5	0.2	41.9	0.2	16.5	0.0	18.3	0.0				
341	112.5	2.3	128.5	3.1	72.8	0.8	82.0	1.0	42.1	0.2	47.2	0.3	18.5	0.0	20.7	0.0				
379	125.2	2.7	142.7	3.8	80.9	0.9	91.1	1.3	46.8	0.3	52.5	0.3	20.5	0.0	22.9	0.0	8 in. SCH40	8 in. SCH80		
473	156.5	4.2	178.4	5.7	101.0	1.4	114.0	1.9	58.6	0.4	65.7	0.5	25.8	0.1	28.7	0.1	11.9	0.0	16.3	0.0
568	187.8	5.8	214.1	8.0	121.3	2.0	136.7	2.7	70.3	0.5	78.7	0.7	30.9	0.1	34.4	0.1	14.8	0.0	19.6	0.0
663					141.5	2.7	159.6	3.6	82.0	0.7	91.9	0.9	36.1	0.1	40.3	0.1	17.7	0.0	22.9	0.0
757					161.6	3.4	182.5	4.6	93.5	0.9	104.9	1.2	41.2	0.1	47.4	0.2	20.6	0.0	26.1	0.0
946					202.0	5.1	228.0	6.9	117.1	1.4	131.0	1.8	51.4	0.2	57.5	0.2	23.8	0.0	32.7	0.1
1135									140.4	1.9	157.4	2.5	61.7	0.3	68.8	0.3	29.6	0.1	39.1	0.1
1325									163.8	2.6	183.5	3.4	72.1	0.3	80.3	0.5	35.5	0.1	45.7	0.1
1514									187.2	3.3	209.9	4.3	82.2	0.4	91.9	0.6	41.5	0.1	52.3	0.1
1703													92.6	0.6	103.2	0.7	47.4	0.1	58.7	0.2
1893													102.8	0.7	114.7	0.9	53.4	0.1	65.3	0.2
2839													154.3	1.4	172.0	1.8	59.3	0.2	98.0	0.5
3785													205.7	2.4	229.5	3.1	88.9	0.4	130.6	0.8
4731																	118.5	0.6	163.3	1.2
5678																	148.1	1.0	195.9	1.7
7571																	177.8	1.4		



**APPLICABILITY GUIDE**

<b>R</b>	= Recommended
<b>NR</b>	= Not Recommended
<b>?</b>	= Incomplete Data; actual testing required

# PVC CHEMICAL RESISTANCE CHART (TABLE-9)

CHEMICALS	APPLICABILITY	CHEMICALS	APPLICABILITY	CHEMICALS	APPLICABILITY
Acetaldehyde	NR	Copper Cyanide	R	Maleic Acid, 50%	R
Acetamide	NR	Copper Fluoride	R	Mercuric Chloride	R
Acetic Acid, pure	NR	Corn Syrup	R	Mercuric Cyanide	R
Acetic Anhydride	NR	Cottonseed Oil	R	Mercury Dintment, Ammoniated	R
Acetylene	R	Crude Oil	R	Methanol, ≤10%	R
Acrylic Acid	NR	Cumene	?	Methyl Chloride	NR
Alum, all varieties	R	Cyclanones	R	Methyl Ethyl Ketone	NR
Aluminum Acetate	R	Cyclohexane	NR	Potassium Ethyl Xanthate	R
Aluminum Hydroxide	R	Desocyphehrine Hydrochloride	R	Potassium Ferricyanide	R
Aluminum Nitrate	R	Detergents	R	Potassium Hypochlorite	R
Ammonia (gas;dry)	R	Diazo Salts	R	Potassium Iodide	R
Ammonia (liquid)	NR	Dibutoxy Ethyl Phthalate	NR	Potassium Permanganate, 10%	R
Ammonium Carbonate	R	Dichloroethylene	NR	Potassium Permanganate, 25%	R
Ammonium Chloride	R	Diesel Fuels	R	Potassium Sulfide	R
Ammonium Hydroxide	R	Lactic Acid, 25%	R	Potassium Sulfite	R
Ammonium Metaphosphate	R	Lactic Acid, 80%	R	Propanol, →0.5%	R
Ammonium Sulfate	R	Lead Acetate	R	Propanol, ←= 0.5%	R
Ammonium Sulfide	R	Lead Chloride	R	Propylene Dichloride	NR
Amyl Alcohol	R	Limonene	?	Propylene Glycol, →25%	?
Amyl Chloride	NR	Linoleic Acid	R	Pyrogalllic Acid	R
Chlorosulfonic Acid	R	Lithium Bromide	R	Rayon Coagulating Bath	R
Chlorox Bleach Solution	R	Lithium Sulfate	R	Santicizer	NR
Chromic Acid, 50%	NR	Lux Liquid	R	Sea Water	R
Chromic Acid/Sulfuric Acid/water-50%/15%/35%	R	Machine Oil	R	Silicone Oil	?
Citrus Oils	?	Magnesium Fluoride	R	Silver Chloride	R
Coconut Oil	R	Magnesium Hydroxide	R	Soaps	R
Anthraquinone Sulfonic Acid	R	Magnesium Sulfate	R	Sodium Acetate	R
Arsenic Acid, 80%	R	Olive Oil	R	Hydrofluoric Acid, 50%	R
Arsenic Trioxide (powder)	R	Ozonized water	R	Hydrogen	R
Barium Hydroxide, 10%	R	Palm Oil	R	Hydrogen Peroxide, 30%	R
Barium Nitrate	R	Peanut Oil	R	Hydroquinone	R
Beet Sugar Liquors	R	Sodium Bicarbonate	R	Hydroxylamine Sulfate	R
Benzaldehyde, ←=10%	R	Sodium Borate	R	Iodine Solution, 10%	NR
Benzoic Acid	R	Sodium Bromide	R	Isopropanol	?
Benzyl Alcohol	NR	Sodium Chlorite	NR	Peracetic Acid, 40%	R
Bleach (15% CL)	R	Sodium Chromate	R	Perchloric Acid, 10%	R
Borax	R	Sodium Ferrocyanide	R	Petroleum Liquifier	R
Bromine Liquid	NR	Sodium Fluoride	R	Petroleum Oils (Sour)	R
Bromine Vapor, 25%	R	Sodium Hypochlorite	R	Phosgene, Gas	R
Butadiene	R	Sodium Iodide	R	Phosgene, Liquid	NR
Butane	R	Sodium Perchlorate	R	Phosphorous, (Yellow)	R
Butyl Carbitol	?	Sodium Peroxide	R	Photographic Solutions; Dektal Developer	R
Butyl Mercaptan	NR	Sodium Sulfite	R	Picric Acid	NR
Butyne Diol	R	Sodium Thiosulfate	R	Plating Solutions: Brass	R
Butyric Acid, ←=1%	R	Stannic Chloride	R	Plating Solutions: Indium	R
Dill Oil	?	Stannous Chloride	R	Plating Solutions: Lead	R
Dimethyl Hydrazine	NR	Stoddards Solvent	NR	Plating Solutions: Tin	R
Dioxane (1, 4)	NR	Styrene	NR	Plating Solutions: Zinc	R
Disodium Phosphate	R	Sulfite Liquor	R	Potassium Alum	R
Epsom Salt	R	Sulfur	R	Potassium Amyl Xanthate	R
Esters	NR	Sulfuric Acid, 70%	R	Potassium Borate	R
Ethyl Acetate	NR	Cadmium Cyanide	R	Potassium Bromate	R
Ethyl Acrylate	NR	Calcium Bisulfide	R	Potassium Chloride	R
Ethyl Ether	NR	Calcium Bisulfite	R	Potassium Chromate	R
Ethylene Bromide	NR	Calcium Chloride	R	Sulfuric Acid, 80%	R
Ethylene Glycol	R	Calcium Hydroxide	R	Sulfuric Acid, 85%	R
Ethylene Oxide	NR	Calcium Sulfate	R	Sulfuric Acid, Pickling	R
		Camphor (crystals)	R	Sulfurous Acid	R

CHEMICALS	APPLICABILITY
Ferric Hydroxide	R
Ferric Nitrate	R
Ferrous Nitrate	R
Ferrous Sulfate	R
Fluoroboric Acid	R
Fluorosilicic Acid, 25%	R
Freon 11	R
Freon 113	R
Freon 21	NR
Methyl Salicylate	R
Methylene Bromide	NR
Methylene Chloride	NR
Mineral Oil	R
Molasses	R
Naphtha	R
Naphthalene	NR
Nickel Nitrate	R
Nickel Sulfate	R
Nitric Acid, 25%	R
Nitric Acid, 25-35%	R
Nitrobenzene	NR
Nitroglycerine	NR
Octanol (1)	R
Oil, Sour Crude	R
Oleum	NR

CHEMICALS	APPLICABILITY
Carbitol	R
Carbon Dioxide	R
Carbon Tetrachloride	R
Carbonic Acid	R
Caustic Soda	R
Cellosolve	R
Chloric Acid, up to 20%	R
Chloride Water	R
Chlorine (liquid under pressure)	NR
Chlorine Dioxide, aqueous (sat'd 0.1%)	?
Chlorine(trace in air)	R
Chloroacetic Acid	R
Chloropicrin	NR
Freon 22	NR
Gallic Acid	R
Gas (Coke Oven)	NR
Glucose	R
Glycerine	R
Grape Sugar	R
Green Liquor	R
Hexane	R
Hexanol, Tertiary	R
Hydrochloric Acid, 30%	R
Hydrochloric Acid, 36%	R
Hydrofluoric Acid, 48%	R

CHEMICALS	APPLICABILITY
Lanning Liquors	R
Tartaric Acid	R
Texanol	?
Thionyl Chloride	NR
Transformer Oil	R
Tributyl Citrate	R
Triethanolamine	R
Trilones	NR
Turpentine	R
Urea	R
Vinegar	R
Vinyl Acetate	NR
Water, Distilled	R
Water, Fresh & Salt	R
White Liquor	R
Wines	R
Zinc Chloride	R
Zinc Nitrate	R

## FAQ

### What is Ajay Greenline? What is meant by lead Free System?

Ajay Greenline is an Eco-friendly Lead free UPVC Pipe and Fittings System manufactured from high quality, high strength and UV stable PVC compound that meets or exceeds the requirement of American standards. Ajay Greenline is easy to transport, store, handle and simple to install ensuring no corrosion and maintenance. Ajay Greenline Pipes are smooth, reducing frictional losses and resist clogging. The system is non-toxic, non-corrosive and does not allow any bacterial growth. It possesses good chemical and physical properties, which provides resistance to wide range of chemicals.

Lead a traditional material used as an additive in UPVC pipes is toxic for human beings and minor intake over a long duration of time may result in serious health effects. For potable water use, major international standards recommend use of lead free systems.

### Is Ajay Greenline affordable? What the expected life time?

Ajay Greenline is extremely affordable especially when compared to conventional systems. It is very competitive in terms of price and at the same time its resistance to weathering, chemical rotting, corrosion, shock and abrasion further enhances its value on account of its long life span and low maintenance.

Studies on UPVC pipe made in Europe suggest a very long useful life for these products in excess of 50 years, which will generally exceed the lifespan of the structures they are installed in.

### Is UPVC pipe easier to install than alternative materials?

Ajay Greenline is substantially easier to install using the simple solvent welding system. It does not require any threading dies, welding/soldering torches, electricity or special tools. It is very light weight yet strong when compared to many alternatives. A length of UPVC pipe will weigh several times less than an equivalent size section of GI pipe making it easier to handle. Even unskilled labor can install them.

### What are solvent cements? What is Solvent cementing process? Why is the system also known as pasting type system?

Solvent cements are mixtures of solvents (chemicals) and plastic resins used to weld (join) plastic pipe and fittings. Some cement contain additives and colors depending on application.

The solvents penetrate (attack) the surfaces of the pipe and fitting, causing them to soften and swell. Once the pipe/fittings are put together, the softened material intermixes to form a homogenous joint. Solvent are liquid and they evaporate fast. As the solvent cements are not adhesives/glue and will only weld plastic pipe to each other. The set usually only takes a minute or two to allow for gentle handling of the joint.

The "cure" is the slow increase in strength of the joint.

The system is also known as "Pasting Type" Only as lay-man terminology.

## Is solvent welding capable of high strength?

Yes! Lap shear testing, as required by ASTM standards, determines the weld strength over time on flat Samples of UPVC plastic. Joint strength is 17.5 kg/cm<sup>2</sup> in two hours and slowly approaches the strength of the plastic in the pipe.

## Can we use locally available solvent cements with Ajay Greenline?

Normally the solvent cement forms a very tiny cost of the entire plumbing system. Ajay only recommends use of NSF certified solvent cement to ensuring product quality and for health/safety reasons. Sub-standard solvent cement may cause failures and ultimately huge losses for the end-user.

## Can we use Ajay Greenline pipe with locally available fittings and vice-versa?

The first thing to remember is that Ajay Greenline is a lead-free system. Although locality available SCH 40/80 Fittings may be used with Ajay Greenline pipe or vice-versa however it is always recommended that pipes and fittings of the same manufacturer be always used. This ensures similar material and the best fit between pipes and fittings. Also in case of problem the responsibility lies with one supplier only.

## Can Ajay Greenline be used for outdoor installations? Are there any recommendations?

PVC pipe contains stabilizers to protect the pipe against attack by UV present in sunlight. After several months of the pipe, however, the performance of the pipe is not affected. Studies show that Modulus of Elasticity and Tensile Strength are virtually unaffected.

PVC pipe used in permanent outdoor exposures is recommended to be protected by light colored water based paint, Do not use oil based paints.



- Install according to Ajay's Installation instructions and manual and follow recommended safe work practices.
- Keep Pipe and Fittings in original packaging until needed and store pipes in covered areas.
- Use tools designed for use with plastic pipe and fittings.
- Take correct precautions while installing pipes and fittings above 2" in accordance with Ajay recommendations.
- Remove dirt from pipe & fittings. Clean pipe & fittings with clean cloth.
- Cut off min. 25 mm beyond the edge of the crack in case any crack is discovered on the pipe.
- Cut the pipe as square (perpendicular) as possible before making a joint.
- Deburr & Bevel: Ensure no sharp edges in contact with the fittings surface while inserting the pipe.
- Take correct precautions while installing with solar water heaters & boilers in accordance with Ajay recommendations and check dry fitment.
- Use a suitable applicator of half pipe OD.
- First apply five revolution of solvent cement on pipe then five revolution on fitting.
- Assemble quickly after applying solvent cement.
- Rotate the pipe 90° to 180° to spread the UPVC Solvent Cement evenly in the joint while pushing the Pipe into Fitting & hold for 30 seconds.
- Ensure proper alignment of pipe & fitting to avoid stress on the joints.

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- Ensure installation is done in such a way that there are no chances of air entrapment.
- Provide Vertical & Horizontal Supports as recommended.
- Use Teflon tapes only as thread sealant.
- Insulation hot water pipes exposed to the atmosphere.
- Always conduct hydraulic pressure testing after installation to detect any leaks and faults.
- Wait for appropriate cure time before pressure testing. Fill lines slowly and bleed air from the system prior to pressure testing.



- Do not Use Metal Hooks or Nails to support/hold or put pressure on the pipes. Do not use straps & hangers with rough or sharp edges. Do not tighten the straps over the pipes.
- Never expose the pipe to Open Flame while trying to bend it.
- Do not drop pipes on edges from heights. Do not drop heavy objects on pipes or walk on pipes.
- Do not dilute the Fusion Compound with Thinners/ MTO or any other liquid etc.
- Do not use air or gases for pressure testing.
- Do not use any other petroleum or solvent-based sealant, adhesive, lubricant or fire stop material on PVC pipes and fittings.
- Do not use UPVC Pipes & Fittings for pneumatic applications.
- Don't use thread for jointing of UPVC pipes & fittings.

## AJAY GREENLINE PAN INDIA DISTRIBUTION

State	Current Address
Delhi & NCR :	20/05, Site – 4, Sahibabad Industrial Area, Sahibabad, Ghaziabad (UP) Ph – 011-29892259 Email – info@ajaypipes.com
Gujarat :	C/o – Survey No 109 & 129, Grey Stone Bulcone Llp, Opp : Gokuldharm, Nr, Ford Service Centre, Santipura – Sanad Highway,ularia Village, Dist : Ahmedabad – 382210 (Guajrat) Ph – 9375761124, Email – gjdepot@ajaypipes.com
Karnataka :	Survey No. 55/2, Hoodi Village, K.R. Puram, Hoodi Main Road, Bangalore – 560048 Ph – 7337833733, Email – kadepot@ajaypipes.com
Kerala :	V/III76A, Mayamma Buildings, Bible College Junction, P.O. Varikkoly, Puthuncruz, District Ernakulam, Kochi – 682308, Ph – 9349983263, Email – kldepot@ajaypipes.com
Madhya Pradesh :	323 / 13, Udyog Nagar, Palda, Gram Palda, Behind prathna Tol Kanta, Nemawar Road, Indore – 452001, Ph: 9303017008, Email: mpdepot@ajaypipes.com
Maharashtra :	G-21,Profit Centre, Opp. Panchseel Height. Mahavir Nagar,Kandivali (W).Mumbai. - 400067 Ph – 9324696988, Email – mhdepot@ajaypipes.com  Gate No. 764/767/768, Shirwal Bhor Road, Near Riter Company, Village-Wing, Taluka-Khandala District - Satara – 412801, Maharastra, Ph – 9370520007, Email – mhdepot@ajaypipes.com  Sr. No. 4, H. No. 842, Mangaldham Society, Sonaba Nagar, Khadgaon Road, Wadi, Nagpur – 440023, Maharastra, Ph – 9130094509, Email – mhdepot@ajaypipes.com
Telangana :	Plot Nos : 11 A & 20 A (d.no-2-24-90/11/20 Nr), Road No.5, Sri Sai Colony, Lakshminarayana Nagar, Uppal, Hyderabad, Telangana - 500039. Ph – 9394295888, Email – apdepot@ajaypipes.com
Uttarakhand :	LME, G67-UPSIDC, Industrial Area, Selaqui, Dehradun - 248011, Uttrakhand Ph – 9555160106, Email – updepot@ajaypipes.com
West Bengal :	Sankrail Industrial Park, Jala Dhulagori, PS. Sankrail, Howrah – 711302, Kolkata Ph – 9333115592/7797484448/9378139554, Email – wbdepot@ajaypipes.com



### Ajay Industrial Corporation Ltd.

B-II/29, Mohan Co-operative Industrial Estate, Badarpur Border, New Delhi-110044

Toll Free No.: 1800 11 4050 | E: info@ajaypipes.com | W: www.ajaypipes.com

Branch Offices : Ahmedabad | Bangalore | Dehradun | Hyderabad | Indore | Kochi | Kolkata | Mumbai | Nagpur | Satara