



*Your Complete Piping Solutions*

# PVC-U

## Pressure Pipe System



ISO 9001:2008 2010 CERT. NO. 0485 (2441)



# COMPANY BACKGROUND

Cew Sin Plastic Pipe (243310-M) was founded in 1992 and is a renowned plastic pipe manufacturer in Malaysia that specializes in Unplasticized Polyvinyl Chloride (PVC-U) Pipes and Fittings, Polypropylene Random (PP-R) Pipes and Fittings and High-Density Polyethylene (HDPE) Pipes. Cew Sin (CS) uses primarily PVC-U, PP-R and HDPE raw materials to manufacture high-quality, safe and reliable plastic pipes and fittings for a wide range of applications, including water supply, drainage, sewage, cable and wire conduits for a wide spectrum of industries such as construction, infrastructure, utility, agriculture and many more. It is our cutting-edge technology and proven track record of quality excellence that has made us a respected leader in the market.

CS is also committed to providing green solutions for our customers. We offer environmentally friendly, lead-free options for our pipes and fittings. Our products also comply with various national and international professional certifications as part of our pursuit of quality excellence. At the same time, we invest heavily in Research and Development because we believe in continuously upgrading the quality of our products, as befitting our status as a market leader in Malaysia.

We owe our achievements in the plastic pipe manufacturing industry to sound management, professional production, continuous upgrades and efficient services. Our endeavours over the years have made us a well-trusted brand in both the domestic and international market.

We are ISO 9001:2015 Quality Management System certified, while stringent measures are adopted to ensure a high product quality that meets our local and export customers' needs. Our products are also endorsed by SIRIM QAS (Standard of Industrial and Research Institute in Malaysia) and TÜV SÜD certified according to local and international standards.

Apart from international certification, our pipes and fittings meet the requirements of the Malaysian National Water Authority (Suruhanjaya Perkhidmatan Air Negara or SPAN), Jabatan Air Negeri Sabah, and the State Water Authority of Sarawak.

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## OUR COMMITMENTS AND SERVICES



### VISION

To become the leading manufacturer and distributor of complete PVC-U, PP-R and HDPE piping systems in the region.

### MISSION

To ensure total customer satisfaction through continuously improving our products, resources, facilities and services.

### QUALITY POLICIES

- ◆ Customer satisfaction is our top priority
- ◆ Strive to be the best in the industry
- ◆ People competency is the key driver
- ◆ Plan for and commit to continuous improvement



## STATE-OF-THE-ART LABORATORY

CS strongly believes in the importance of high-quality, durable, safe and reliable products. We have a comprehensive range of equipment in our laboratory where all products are rigorously tested in compliance with local and international standards. Fine raw materials and compounds are assessed in terms of temperature, pressure and energy input, while pipe samples are put under stringent impact and tensile strength inspections. Our dedicated Research and Development team is also always working on developing new ways to upgrade the quality of our pipes and fittings as according to industry standards.

## OFFICIAL CERTIFICATIONS

CS's wide range of products adheres to ISO 9001 certification, as well as both local and international standards, including but not limited to:

- ◆ SIRIM (Standard and Industrial Research Institute of Malaysia)
- ◆ TÜV SÜD Malaysia



# UNPLASTICIZED POLYVINYL CHLORIDE (PVC-U) PIPES AND FITTINGS

PVC-U pipes are odourless, tasteless and ideal for the safe transportation of drinking water. They are also rigid, environmentally friendly, extremely versatile and can be used to carry soil and waste, sewage and underground drainage as well as industrial applications above and below ground. PVC-U pipes require little to no maintenance. They will not fade, warp, rot or rust even when exposed to the harshest of weather conditions and any surface scratches are usually easily polished out.

PVC-U pipes are arguably the most economic option in the market and are highly resistant to corrosion. They have a long lifespan as they can endure most solutions of acids, alkalis, salts and solvents that can be mixed with water. They also have a smooth inner wall, which encourages an even water flow and ensures good resistance to abrasion.

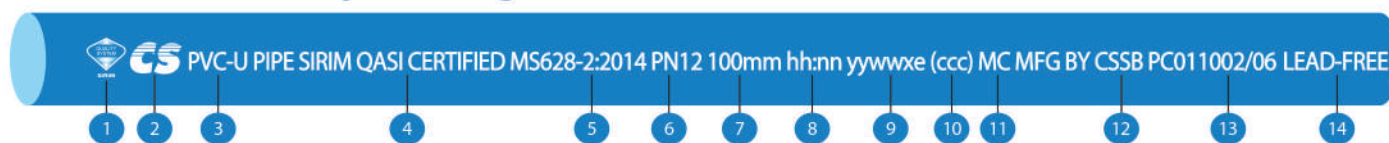
CS is committed to providing green solutions for our customers and provides environmentally friendly, lead-free options for all our PVC-U pipes and fittings, which are also customizable with our high-quality pigments. We also provide customers with a full product range that includes rigorously tested PVC-U pipes, fittings and joinings.



## Features:

- ◆ Most economic pipe option in the market
- ◆ Safe for transport of drinking water, soil and waste, sewage and underground drainage
- ◆ Environmentally friendly, lead-free option available
- ◆ High resistance to chemical and abrasion corrosion
- ◆ Extremely durable and long-lasting
- ◆ Low maintenance as it will not fade, warp, rot or rust
- ◆ Save time with simple installation
- ◆ Rigorously tested according to local and international standards
- ◆ Customisable colours

## CS Pipe Marking

### PVC-U Bell-Mouth Pipe Marking



- |  |   |
|--|---|
| ① SIRIM Logo    | ⑧ Time and Minutes  |
| ② CEW SIN Logo  | ⑨ Production code (yy-year/ww-weeks/x-day of weeks/e-shift) |
| ③ Material   | ⑩ Counter Batch   |
| ④ Sirim QASI Certified   | ⑪ Machine no.   |
| ⑤ Standard References and Conformance  | ⑫ Manufacture code  |
| ⑥ Application and Area Code  | ⑬ Sirim License Number                                      |
| ⑦ Nominal Size   | ⑭ LEAD-FREE Formulation                                     |

# PRODUCT CODE

## PVC-U PIPE NEW CODE

**PS-D-100-5.8-GY**

GROUP+ SERIES    PRODUCT & CLASS    DIAMETER SIZES    LENGTH    COLOUR

## PVC-U FITTINGS NEW CODE

**F-EE-E-015-GY**

GROUP+ SERIES    PRODUCT    CLASS    DIAMETER SIZES    COLOUR

### GROUP

P	PIPE
F	FITTINGS
O	OTHERS

### SERIES

S	SIRIM
C	CUSTOM MADE

### CLASS

O	CLASS O
B	CLASS B / PN 6
C	CLASS C / PN 9
D	CLASS D / PN 12
E	CLASS E / PN 15
6	CLASS 6
7	CLASS 7
BMD	BELL END PVC-U CLASS D / PN 12
BME	BELL END PVC-U CLASS E / PN 15

### FITTINGS

PTS	PT SOCKET
PTE	PT ELBOW
DES	DOUBLE END SOCKET
EE45	ELBOW 45°
EE	ELBOW 90°
TEE	EQUAL TEE
RB	REDUCING BUSH
RS	REDUCING SOCKET
RT	REDUCING TEE
RE	REDUCING ELBOW
PTT	PT-TEE (FAUCET TEE)
TC	TANK CONNECTOR
VS	VALVE SOCKET
EC	END CAP
PLG	THREADED PLUG
FLG	FLANGE

### DIAMETER / SIZES

15MM	1/2"
20MM	3/4"
25MM	1"
32MM	1 1/4"
40MM	1 1/2"
50MM	2"
65MM	2 1/2"
80MM	3"
100MM	4"
125MM	5"
155MM	6"
200MM	8"
250MM	10"
300MM	12"

### LENGTH

5.8	5.8 MTR
6.0	6.0 MTR

### COLOR

BL	BLUE
GY	GREY
WT	WHITE

# PVC-U PRESSURE PIPES BELL END RUBBERING JOINT

MS 628-2: 2014



A PVC-U Bell End Rubbering Joint pressure pipe is ideal for the transportation of water over long distances. It has a high endurance to chemical pollutants and is safe to carry water for human consumption.

CS provides convenience to our customers by providing bell end pipes complete with rubbering joints for quick and easy installation. The belled-out design of these pipes paired with the rubbering joint ensures a snug and leak-free fit with the next length of pipe, without the need for a coupling. This means you can save time and costs for piping projects, especially those that span long lengths.

CS's Bell End Rubbering Joint pipes undergo meticulous and rigorous testing as according to the local MS 628 standard, which requires pipes to have a Minimum Required Strength (MRS) of 25 MPa (250 bars) at 20°C for 50 years.

## Features:

- ◆ Environmentally friendly, lead-free option available
- ◆ Quick, easy, leak-free installation with simple locking method
- ◆ Safe for the transportation of drinking water
- ◆ Versatile and able to handle high pressures
- ◆ Durable and resistant to chemical and abrasion corrosion
- ◆ Low maintenance as it will not fade, warp, rot or rust
- ◆ Save time with easy installation



# PVC-U PRESSURE PIPES BELL END WITH RUBBERING

MS 628-2:2014

## PN9 / CLASS C

PRODUCT CODE	NOMINAL / SIZES(MM)		OUTSIDE DIAMETER (MM)		WALL THICKNESS (MM)		LENGTH (METER)
	(IN.)	(MM)	MIN	MAX	MIN	MAX	
PS-BMC-080-6.0-GY	3	80	88.70	89.10	3.50	4.10	6.0
PS-BMC-100-6.0-GY	4	100	114.10	114.50	4.50	5.20	6.0
PS-BMC-155-6.0-GY	6	155	168.00	168.50	6.60	7.60	6.0
PS-BMC-200-6.0-GY	8	200	218.80	219.40	7.80	9.00	6.0
PS-BMC-250-6.0-GY	10	250	272.60	273.40	9.70	11.20	6.0
PS-BMC-300-6.0-GY	12	300	323.40	324.30	11.50	13.30	6.0

## PN12 / CLASS D

PRODUCT CODE	NOMINAL / SIZES(MM)		OUTSIDE DIAMETER (MM)		WALL THICKNESS (MM)		LENGTH (METER)
	(IN.)	(MM)	MIN	MAX	MIN	MAX	
PS-BMD-080-6.0-GY	3	80	88.70	89.10	4.60	5.30	6.0
PS-BMD-100-6.0-GY	4	100	114.10	114.50	6.00	6.90	6.0
PS-BMD-155-6.0-GY	6	155	168.00	168.50	8.80	10.20	6.0
PS-BMD-200-6.0-GY	8	200	218.80	219.40	10.30	11.90	6.0
PS-BMD-250-6.0-GY	10	250	272.60	273.40	12.80	14.80	6.0
PS-BMD-300-6.0-GY	12	300	323.40	324.30	15.20	17.50	6.0

## PN15 / CLASS E

PRODUCT CODE	NOMINAL / SIZES(MM)		OUTSIDE DIAMETER (MM)		WALL THICKNESS (MM)		LENGTH (METER)
	(IN.)	(MM)	MIN	MAX	MIN	MAX	
PS-BME-100-6.0-GY	4	100	114.10	114.50	7.30	8.40	6.0
PS-BME-155-6.0-GY	6	155	168.00	168.50	10.80	12.50	6.0
PS-BME-200-6.0-GY	8	200	218.80	219.40	12.60	14.50	6.0
PS-BME-250-6.0-GY	10	250	272.60	273.40	15.70	18.10	6.0
PS-BME-300-6.0-GY	12	300	323.40	324.30	18.70	21.60	6.0

# PVC-U PRESSURE PIPES PLAIN END

**MS 628-2: 2014**  
(BS EN ISO 1452:2009)



The plain end is the standard end type for pipes and is the most common type of PVC-U pipe in the market. It is tasteless, odourless and safe for the transportation of drinking water for human consumption as well as agricultural use.

CS's Plain End Pressure Pipes undergo rigorous testing as according to the local MS 628 standard and international BS EN ISO 1452:2009. The standards dictate the pipes have a Minimum Required Strength (MRS) of 25 MPa (250 bars) at 20°C for 50 years. This pipe is joined with solvent cement.

## **Features:**

- ◆ Safe for the transportation of drinking water
- ◆ Environmentally friendly, lead-free option available
- ◆ Rigorously tested according to local and international standards
- ◆ Versatile and able to withstand high pressures
- ◆ Durable and resistant to chemical and abrasion corrosion
- ◆ Low maintenance as it will not fade, warp, rot or rust
- ◆ Save time with easy installation
- ◆ Simple, secure and cost-effective jointing with solvent cement



# PVC-U PRESSURE PIPES PLAIN END AND SOCKET END

MS 628-2:2014

## PN9 / CLASS C

PRODUCT CODE	NOMINAL / SIZES(MM)		OUTSIDE DIAMETER (MM)		WALL THICKNESS (MM)		LENGTH (METER)
	(IN.)	(MM)	MIN	MAX	MIN	MAX	
PS-C-050-5.8-GY	2	50	60.20	60.50	2.50	3.00	5.8
PS-C-080-5.8-GY	3	80	88.70	89.10	3.50	4.10	5.8
PS-C-100-5.8-GY	4	100	114.10	114.50	4.50	5.20	5.8
PS-C-155-5.8-GY	6	155	168.00	168.50	6.60	7.60	5.8
PS-C-200-5.8-GY	8	200	218.80	219.40	7.80	9.00	5.8
PS-C-250-5.8-GY	10	250	272.60	273.40	9.70	11.20	5.8
PS-C-300-5.8-GY	12	300	323.40	324.30	11.50	13.30	5.8

## PN12 / CLASS D

PRODUCT CODE	NOMINAL / SIZES(MM)		OUTSIDE DIAMETER (MM)		WALL THICKNESS (MM)		LENGTH (METER)
	(IN.)	(MM)	MIN	MAX	MIN	MAX	
PS-D-032-5.8-GY	1-1/4	32	42.10	42.40	2.20	2.70	5.8
PS-D-040-5.8-GY	1-1/2	40	48.10	48.40	2.50	3.00	5.8
PS-D-050-5.8-GY	2	50	60.20	60.50	3.10	3.70	5.8
PS-D-080-5.8-GY	3	80	88.70	89.10	4.60	5.30	5.8
PS-D-100-5.8-GY	4	100	114.10	114.50	6.00	6.90	5.8
PS-D-155-5.8-GY	6	155	168.00	168.50	8.80	10.20	5.8
PS-D-200-5.8-GY	8	200	218.80	219.40	10.30	11.90	5.8
PS-D-250-5.8-GY	10	250	272.60	273.40	12.80	14.80	5.8
PS-D-300-5.8-GY	12	300	323.40	324.30	15.20	17.50	5.8

## PN15 / CLASS E

PRODUCT CODE	NOMINAL / SIZES(MM)		OUTSIDE DIAMETER (MM)		WALL THICKNESS (MM)		LENGTH (METER)
	(IN.)	(MM)	MIN	MAX	MIN	MAX	
PS-E-015-5.8-GY	1/2	15	21.20	21.50	1.70	2.10	5.8
PS-E-020-5.8-GY	3/4	20	26.60	26.90	1.90	2.50	5.8
PS-E-025-5.8-GY	1	25	33.40	33.70	2.20	2.80	5.8
PS-E-032-5.8-GY	1-1/4	32	42.10	42.40	2.70	3.20	5.8
PS-E-040-5.8-GY	1-1/2	40	48.10	48.40	3.10	3.70	5.8
PS-E-050-5.8-GY	2	50	60.20	60.50	3.90	4.50	5.8
PS-E-080-5.8-GY	3	80	88.70	89.10	5.70	6.60	5.8
PS-E-100-5.8-GY	4	100	114.10	114.50	7.30	8.40	5.8
PS-E-155-5.8-GY	6	155	168.00	168.50	10.80	12.50	5.8
PS-E-200-5.8-GY	8	200	218.80	219.40	12.60	14.50	5.8
PS-E-250-5.8-GY	10	250	272.60	273.40	15.70	18.10	5.8
PS-E-300-5.8-GY	12	300	323.40	324.30	18.70	21.60	5.8

\* Socket end pipe only available from 155mm and above.

# PVC-U CLASS 7 HIGH PRESSURE PLAIN END

**BS 3506**  
(ASTM D1785 - SCH 80)



CS's PVC-U Class 7 pipes are the top-of-the-range pick when it comes to heavy duty internal plumbing applications. It is considered the thickest home-use pipes and are extremely durable, reliable, long-lasting and can withstand water temperatures of up to 60°C and handle up to 2.2 MPa (22 bars) of pressure.

These pipes are ideal for luxury housing projects because of its superior noise dampening effects and resistance to rust, rot and wrapping. Class 7 pipes are also the top choice for eco-conscious customers because of its lead-free, environmentally friendly formulation.

CS's Class 7 pipes are available in sizes from 15mm to 50mm and adheres to the BS 3506 and ASTM D1785 standards. It is also equivalent to the American Schedule 80.

## Features:

- ◆ Lead-free and environmentally friendly
- ◆ Ideal for high pressure application
- ◆ Highly recommended for luxury housing projects
- ◆ Superior noise dampening effects (water hammer)
- ◆ No rusty water issue thanks to high corrosion resistance
- ◆ Extremely durable with long lifespan
- ◆ Rigorously tested according to local and international standards
- ◆ Able to withstand temperatures of up to 60°C
- ◆ Light weight and easy to handle, transport and install
- ◆ Low maintenance with strong chemical and abrasion resistance



# PVC-U CLASS 7 - HIGH PRESSURE

**BS 3506: 1969**  
(ASTM D1785 - SCH 80)  
WATER SUPPLY

## PIPES

PRODUCT CODE	NOMINAL / SIZES(MM)		OUTSIDE DIAMETER (MM)		WALL THICKNESS (MM)		LENGTH (METER)
	(IN.)	(MM)	MIN	MAX	MIN	MAX	
PS-7-015-5.8-GY	1/2	15	21.20	21.50	3.70	4.30	5.8
PS-7-020-5.8-GY	3/4	20	26.60	26.90	3.90	4.50	5.8
PS-7-025-5.8-GY	1	25	33.40	33.70	4.50	5.20	5.8
PS-7-032-5.8-GY	1-1/4	32	42.10	42.40	4.80	5.50	5.8
PS-7-040-5.8-GY	1-1/2	40	48.10	48.40	5.10	5.90	5.8
PS-7-050-5.8-GY	2	50	60.20	60.50	5.50	6.30	5.8

## FITTINGS

PRODUCT CODE	15mm (1/2")	20mm (3/4")	25mm (1")	32mm (1 1/4")	40mm (1 1/2")	50mm (2")
Double Equal Socket	✓	✓	✓	-	-	-
Elbow 45 Deg.	✓	✓	✓	-	-	-
Elbow 90 Deg.	✓	✓	✓	-	-	-
Equal Tee	✓	✓	✓	-	-	-

Size	20mm x 15mm (3/4" x 1/2")	20mm x 25mm (3/4" x 1")
Description		
Reducing Bush	✓	✓
Reducing Socket	✓	✓
Reducing Tee	✓	✓

## PVC-U PIPES FOR INDUSTRIAL USE (WATER SUPPLY)

**MS762: 2007**  
(BS 3506: 1969)



The high corrosion resistance properties of PVC-U make it ideal for industrial applications. It can be used for everything from processing cooling water, network infrastructure applications\*, to the transport of hazardous chemicals. It is also a cost-effective option for factories and construction projects because of its affordable price.

PVC-U pipes for industrial use differs from pressure pipes in that it generally can withstand less pressure. However, CS offers a high-pressure Class 7 industrial pipe which can withstand 2.2 MPa (22 bars) in pressure.

\* Please refer to CS Pipes for Network Infrastructure brochures.



# PVC-U PIPES FOR INDUSTRIAL USE (WATER SUPPLY)

**MS762: 2007**  
(BS 3506: 1969)

## CLASS O

PRODUCT CODE	NOMINAL SIZES (MM)		OUTSIDE DIAMETER (MM)		WALL THICKNESS (MM)		LENGTH (METER)
	(IN.)	MM	MIN	MAX	MIN	MAX	
PS-O-040-5.8-GY	1-1/2	40	48.10	48.40	1.80	2.20	5.8
PS-O-050-5.8-GY	2	50	60.20	60.50	1.80	2.20	5.8
PS-O-080-5.8-GY	3	80	88.70	89.10	1.80	2.20	5.8
PS-O-100-5.8-GY	4	100	114.10	114.50	2.30	2.80	5.8
PS-O-155-5.8-GY	6	155	168.00	168.50	3.10	3.70	5.8
PS-O-200-5.8-GY	8	200	218.80	219.40	3.10	3.70	5.8

## CLASS B

PRODUCT CODE	NOMINAL SIZES (MM)		OUTSIDE DIAMETER (MM)		WALL THICKNESS (MM)		LENGTH (METER)
	(IN.)	MM	MIN	MAX	MIN	MAX	
PS-B-080-5.8-GY	3	80	88.70	89.10	2.90	3.40	5.8
PS-B-100-5.8-GY	4	100	114.10	114.50	3.40	4.00	5.8
PS-B-155-5.8-GY	6	155	168.00	168.50	4.50	5.20	5.8
PS-B-200-5.8-GY	8	200	218.80	219.40	5.30	6.10	5.8
PS-B-250-5.8-GY	10	250	272.60	273.40	6.60	7.60	5.8
PS-B-300-5.8-GY	12	300	323.40	324.30	7.80	9.00	5.8

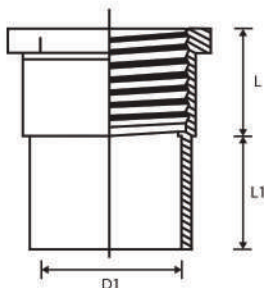
## CLASS 6

PRODUCT CODE	NOMINAL SIZES (MM)		OUTSIDE DIAMETER (MM)		WALL THICKNESS (MM)		LENGTH (METER)
	(IN.)	MM	MIN	MAX	MIN	MAX	
PS-6-015-5.8-GY	1/2	15	21.20	21.50	2.80	3.30	5.8
PS-6-020-5.8-GY	3/4	20	26.60	26.90	2.90	3.40	5.8
PS-6-025-5.8-GY	1	25	33.40	33.70	3.40	4.00	5.8
PS-6-032-5.8-GY	1-1/4	32	42.10	42.40	3.60	4.20	5.8
PS-6-040-5.8-GY	1-1/2	40	48.10	48.40	3.70	4.30	5.8

## CLASS 7

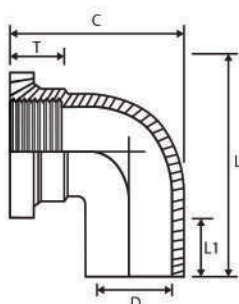
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	(IN.)	MM	MIN	MAX	MIN	MAX	
PS-7-015-5.8-GY	1/2	15	21.20	21.50	3.70	4.30	5.8
PS-7-020-5.8-GY	3/4	20	26.60	26.90	3.90	4.50	5.8
PS-7-025-5.8-GY	1	25	33.40	33.70	4.50	5.20	5.8
PS-7-032-5.8-GY	1-1/4	32	42.10	42.40	4.80	5.50	5.8
PS-7-040-5.8-GY	1-1/2	40	48.10	48.40	5.10	5.90	5.8
PS-7-050-5.8-GY	2	50	60.20	60.50	5.50	6.30	5.8

# PVC-U CLASS 7 FITTINGS



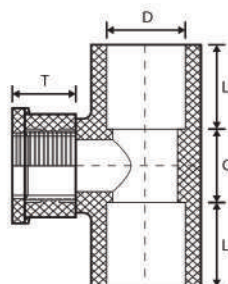
## PT SOCKET CLASS 7 (BRASS THREADED)

PRODUCT CODE	NOMINAL SIZE (mm)	DIMENSIONS (MM)		
		L1	L	D1 (+0.5)
F-BT-PTS-7-015-GY	15	24.20	22.80	21.45



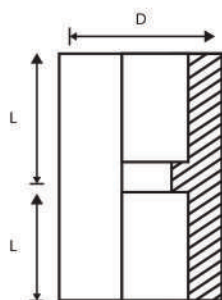
## PT ELBOW CLASS 7 (BRASS THREADED)

PRODUCT CODE	NOMINAL SIZE (mm)	DIMENSIONS (MM)				
		L	L1	C	T	D (+0.5)
F-BT-PTE-7-015-GY	15	54.80	24.00	51.00	17.00	21.45



## PT TEE CLASS 7 (BRASS THREADED)

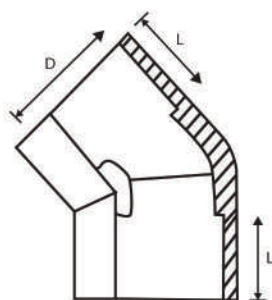
PRODUCT CODE	NOMINAL SIZE (mm)	DIMENSIONS (MM)			
		L	L1	C	T
F-BT-PTT-7-015-GY	15	21.45	24.30	24.20	17.20



## DOUBLE END SOCKET CLASS 7

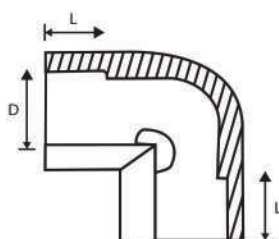
PRODUCT CODE	NOMINAL SIZE (mm)	DIMENSIONS (MM)	
		L	D (+0.5)
F-DES-7-015-GY	15	24.00	21.50
F-DES-7-020-GY	20	27.00	26.90
F-DES-7-025-GY	25	30.00	33.70

# PVC-U CLASS 7 FITTINGS



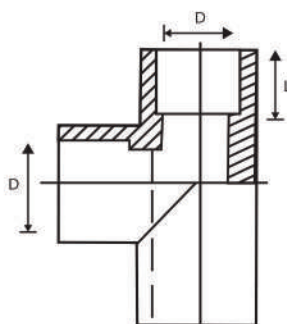
## ELBOW 45° CLASS 7

PRODUCT CODE	NOMINAL SIZE (mm)	DIMENSIONS (MM)	
		L	D (+0.5)
F-EE45-7-015-GY	15	24.00	21.50
F-EE45-7-020-GY	20	27.00	26.90
F-EE45-7-025-GY	25	30.00	33.60



## ELBOW 90° CLASS 7

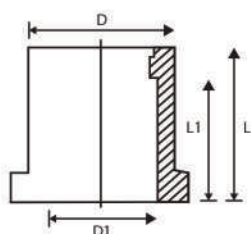
PRODUCT CODE	NOMINAL SIZE (mm)	DIMENSIONS (MM)	
		L	D (+0.5)
F-EE-7-015-GY	15	24.00	21.50
F-EE-7-020-GY	20	26.90	26.90
F-EE-7-025-GY	25	29.90	33.65



## EQUAL TEE CLASS 7

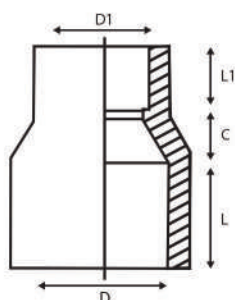
PRODUCT CODE	NOMINAL SIZE (mm)	DIMENSIONS (MM)	
		L	D (+0.5)
F-TEE-7-015-GY	15	23.80	21.50
F-TEE-7-020-GY	20	26.90	26.85
F-TEE-7-025-GY	25	29.90	33.60

# PVC-U CLASS 7 FITTINGS



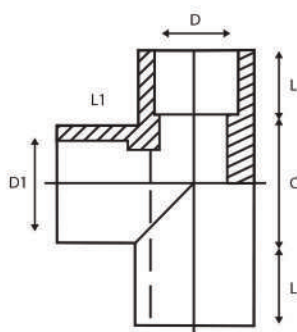
## REDUCING BUSH CLASS 7

PRODUCT CODE	NOMINAL SIZE (mm)	DIMENSIONS (MM)			
		L	L1	D	D1
F-RB-7-020X015-GY	20X15	32.50	27.40	26.90	21.50
F-RB-7-025X020-GY	25X20	35.70	27.20	33.60	26.90



## REDUCING SOCKET CLASS 7

PRODUCT CODE	NOMINAL SIZE (mm)	DIMENSIONS (MM)				
		L	L1	C	D	D1
F-RS-7-020X015-GY	20X15	27.40	22.50	3.50	26.90	21.50
F-RS-7-025X020-GY	25X20	30.50	27.10	8.80	33.60	26.90



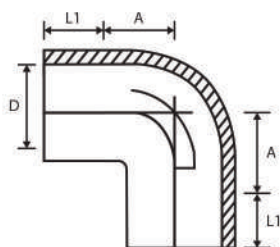
## REDUCING TEE CLASS 7

PRODUCT CODE	NOMINAL SIZE (mm)	DIMENSIONS (MM)				
		L	L1	C	D	D1
F-RT-7-020X015-GY	20X15	26.90	24.10	24.00	26.90	21.50
F-RT-7-025X020-GY	25X20	30.00	27.00	30.30	33.70	26.90

# PVC-U PRESSURE FITTINGS

## EQUAL ELBOW PN 15 / CLASS E

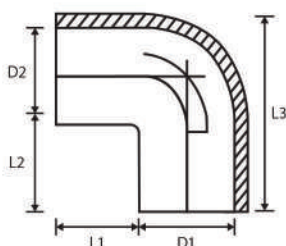
To solvent weld pipes at both ends.



PRODUCT CODE	NOMINAL SIZE (mm)	DIMENSIONS (MM)		
		L1	A	D (+0.15)
F-EE-E-015-GY	15	25.00	13.00	21.50
F-EE-E-020-GY	20	26.00	14.70	26.80
F-EE-E-025-GY	25	27.20	22.00	33.60
F-EE-E-032-GY	32	35.50	24.00	42.30
F-EE-E-040-GY	40	35.00	30.00	48.30
F-EE-E-050-GY	50	47.10	33.00	60.35
F-EE-E-080-GY	80	70.40	50.00	88.90
F-EE-E-100-GY	100	94.50	64.00	114.30
F-EE-E-155-GY	155	140.80	88.00	165.10

## REDUCING ELBOW PN 15 / CLASS E

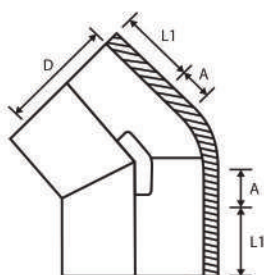
To solvent weld pipes at both ends.



PRODUCT CODE	NOMINAL SIZE (mm)	DIMENSIONS (MM)				
		D1 (+0.15)	D2 (+0.15)	L1	L2	L3
F-RE-E-020X015-GY	20X15	26.80	21.40	23.00	26.00	53.00
F-RE-E-025X020-GY	25X20	33.60	26.80	26.80	27.30	61.00

## 45° ELBOW PN 15 / CLASS E

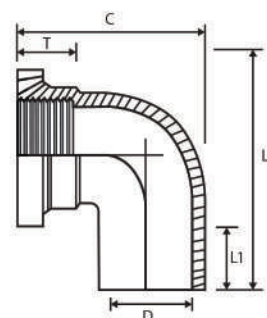
To solvent weld pipes at both ends.



PRODUCT CODE	NOMINAL SIZE (mm)	DIMENSIONS (MM)		
		L1	A	D (+0.15)
F-EE45-E-050-GY	50	65.00	17.00	60.35
F-EE45-E-080-GY	80	76.00	44.00	88.90
F-EE45-E-100-GY	100	92.50	51.00	114.30

## PT-ELBOW (FAUCET ELBOW)

To connect faucet or ball valve to PVC-U water supply line.  
Threaded at one end and solvent weld to pipe on the other end.

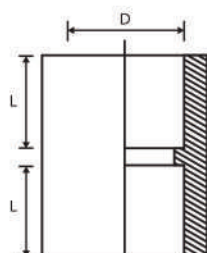


PRODUCT CODE	NOMINAL SIZE (mm)	DIMENSIONS (MM)				
		L	L1	C	T	D(+0.15)
F-PTE-015-GY	15	60.30	30.00	47.80	17.00	21.50
F-PTE-020-GY	20	64.50	30.20	53.50	18.00	26.90

# PVC-U PRESSURE FITTINGS

## DOUBLE END SOCKET PN 15 / CLASS E

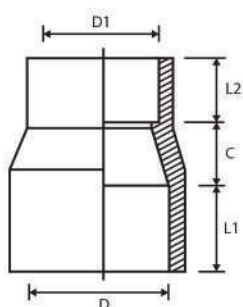
To solvent weld pipes at both ends.



PRODUCT CODE	NOMINAL SIZE (mm)	DIMENSIONS (MM)	
		L	D (+0.15)
F-DES-E-015-GY	15	20.80	21.50
F-DES-E-020-GY	20	22.00	26.80
F-DES-E-025-GY	25	23.60	33.60
F-DES-E-032-GY	32	35.60	42.30
F-DES-E-040-GY	40	49.40	48.25
F-DES-E-050-GY	50	54.80	60.45
F-DES-E-080-GY	80	73.00	89.00
F-DES-E-100-GY	100	94.00	114.30
F-DES-E-155-GY	155	165.00	147.00

## REDUCING SOCKET PN 15 / CLASS E

To solvent weld pipes of different diameters.

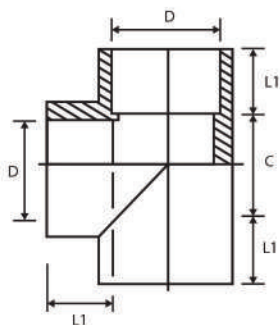


PRODUCT CODE	NOMINAL SIZE (mm)	DIMENSIONS (MM)				
		L1	L2	C	D(+0.15)	D1(+0.15)
F-RS-E-020X015-GY	20X15	21.60	16.80	11.10	26.85	21.50
F-RS-E-025X015-GY	25X15	26.50	22.00	11.00	33.55	21.50
F-RS-E-025X020-GY	25X20	26.20	23.00	10.30	33.70	26.80
F-RS-E-032X015-GY	32X15	30.30	23.30	20.10	42.40	21.40
F-RS-E-032X020-GY	32X20	31.00	25.00	17.00	42.35	26.85
F-RS-E-032X025-GY	32X25	31.00	26.20	16.00	42.40	33.60
F-RS-E-040X015-GY	40X15	35.50	25.60	20.00	48.30	21.50
F-RS-E-040X020-GY	40X20	35.80	26.60	19.00	48.40	26.80
F-RS-E-040X025-GY	40X25	35.70	29.60	16.00	48.25	33.70
F-RS-E-040X032-GY	40X32	35.70	31.80	14.00	48.25	42.25
F-RS-E-050X015-GY	50X15	40.40	26.70	23.00	60.50	21.35
F-RS-E-050X020-GY	50X20	40.50	27.80	22.00	60.35	26.75
F-RS-E-050X025-GY	50X25	40.00	31.00	19.00	60.50	33.60
F-RS-E-050X032-GY	50X32	40.00	33.40	17.00	60.50	42.40
F-RS-E-080X050-GY	80X50	66.00	64.00	35.00	88.80	60.35
F-RS-E-100X050-GY	100X50	100.00	70.40	19.00	114.20	60.30
F-RS-E-100X080-GY	100X80	100.00	69.00	20.00	114.20	88.80

# PVC-U PRESSURE FITTINGS

## EQUAL TEE PN15 / CLASS E

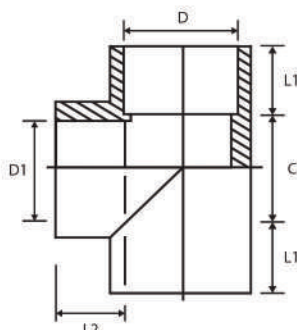
To solvent weld pipes at both ends.



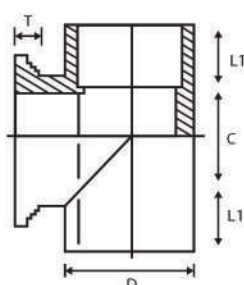
PRODUCT CODE	NOMINAL SIZE (mm)	DIMENSIONS (MM)		
		L1	C	D (+0.15)
F-TEE-E-015-GY	15	23.10	22.50	21.40
F-TEE-E-020-GY	20	25.00	28.00	26.80
F-TEE-E-025-GY	25	30.30	40.00	33.60
F-TEE-E-032-GY	32	33.70	51.00	42.35
F-TEE-E-040-GY	40	45.10	49.00	48.25
F-TEE-E-050-GY	50	50.10	72.00	60.40
F-TEE-E-100-GY	100	80.20	113.00	114.30

## REDUCING TEE PN 15 / CLASS E

To solvent weld pipes at both ends.



PRODUCT CODE	NOMINAL SIZE (mm)	DIMENSIONS (MM)				
		L1	L2	C	D (+0.15)	D1 (+0.15)
F-RT-E-020X015-GY	20X15	26.90	24.10	26.00	26.90	21.50
F-RT-E-025X015-GY	25X15	35.10	36.60	54.20	33.60	21.50
F-RT-E-025X020-GY	25X20	35.10	37.10	42.40	33.60	26.90
F-RT-E-032X020-GY	32X20	35.30	35.00	38.20	42.40	26.90
F-RT-E-032X025-GY	32X25	35.40	35.30	45.00	42.40	33.60
F-RT-E-040X015-GY	40X15	51.00	34.00	33.60	48.35	21.45
F-RT-E-040X020-GY	40X20	51.00	34.60	33.60	48.35	26.85
F-RT-E-040X025-GY	40X25	51.00	36.40	33.60	48.35	33.50
F-RT-E-050X015-GY	50X15	43.50	30.50	47.00	60.50	21.35
F-RT-E-050X020-GY	50X20	43.50	29.70	47.00	60.50	26.75
F-RT-E-050X025-GY	50X25	43.50	33.20	47.00	60.50	33.60
F-RT-E-080X025-GY	80X25	65.20	61.30	95.00	88.80	33.55
F-RT-E-080X050-GY	80X50	66.90	66.10	91.00	88.80	60.35
F-RT-E-100X050-GY	100X50	80.20	80.30	113.00	114.20	60.30
F-RT-E-100X080-GY	100X80	80.20	80.30	113.00	114.20	88.80



## PT-TEE (FAUCET TEE)

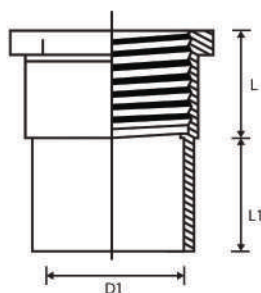
To connect faucet or ball valve to water supply line. Threaded at one opening.

PRODUCT CODE	NOMINAL SIZE (mm)	DIMENSIONS (MM)			
		L1	C	T	D (+0.15)
F-PTT-015-GY	15	22.00	23.50	15.00	21.40

# PVC-U PRESSURE FITTINGS

## PT-SOCKET (FAUCET SOCKET)

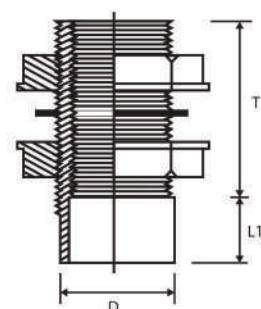
To solvent faucet or ball valves directly to PVC-U pipe. Threaded at one end.



PRODUCT CODE	NOMINAL SIZE (mm)	DIMENSIONS (MM)		
		L	L1	D (+0.15)
F-PTS-015-GY	15	26.00	21.80	21.50
F-PTS-020-GY	20	24.00	31.50	26.90
F-PTS-025-GY	25	34.00	30.30	33.55
F-PTS-032-GY	32	23.00	45.60	42.40
F-PTS-040-GY	40	34.00	37.40	48.35
F-PTS-050-GY	50	30.00	65.00	60.40
F-PTS-080-GY	80	48.00	70.00	88.80
F-PTS-100-GY	100	63.00	86.00	114.20

## TANK CONNECTOR WITH STRAIGHT JAM NUT

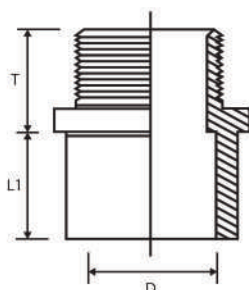
To connect tank to faucet or another socket. Threaded at one end.



PRODUCT CODE	NOMINAL SIZE (mm)	DIMENSIONS (MM)		
		L1	T	D (+0.15)
F-TC-015-GY	15	32.00	33.00	21.40
F-TC-020-GY	20	33.00	41.00	26.90
F-TC-025-GY	25	43.00	44.00	33.70
F-TC-032-GY	32	51.50	62.00	42.40
F-TC-040-GY	40	63.00	61.00	48.30
F-TC-050-GY	50	63.50	61.00	60.35

## VALVE SOCKET

To connect stop-valves to PVC-U Pipe. Threaded at one end.

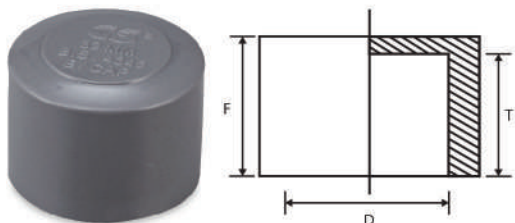


PRODUCT CODE	NOMINAL SIZE (mm)	DIMENSIONS (MM)		
		L1	T	D (+0.15)
F-VS-015-GY	15	26.70	23.00	21.50
F-VS-020-GY	20	30.10	27.00	26.80
F-VS-025-GY	25	34.90	30.00	33.55
F-VS-032-GY	32	43.00	32.00	42.40
F-VS-040-GY	40	49.00	34.00	48.25
F-VS-050-GY	50	67.60	41.00	60.40
F-VS-080-GY	80	79.00	48.00	88.80
F-VS-100-GY	100	105.80	61.00	114.30

# PVC-U PRESSURE FITTINGS

## END CAP

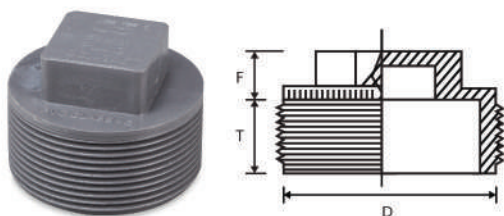
To cap or seal end of PVC-U pipe with solvent cement.



PRODUCT CODE	NOMINAL SIZE (mm)	DIMENSIONS (MM)		
		F	T	D (+0.15)
F-EC-015-GY	15	24.00	20.00	21.50
F-EC-020-GY	20	26.50	22.90	26.85
F-EC-025-GY	25	32.00	26.90	33.60
F-EC-032-GY	32	36.50	30.80	42.35
F-EC-040-GY	40	39.20	32.00	48.35
F-EC-050-GY	50	45.00	37.20	60.35
F-EC-080-GY	80	108.00	76.30	88.80
F-EC-100-GY	100	139.50	99.00	114.30

## THREADED PLUG

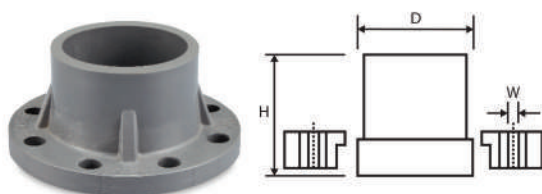
To cap or seal end of PVC-U Pipe.



PRODUCT CODE	NOMINAL SIZE (mm)	DIMENSIONS (MM)		
		F	T	D (+0.15)
F-PLG-015-GY	15	11.00	14.50	20.00
F-PLG-020-GY	20	13.60	17.50	25.20
F-PLG-050-GY	50	17.50	25.50	58.30

## FLANGE

To close or cover the end of a pipe.

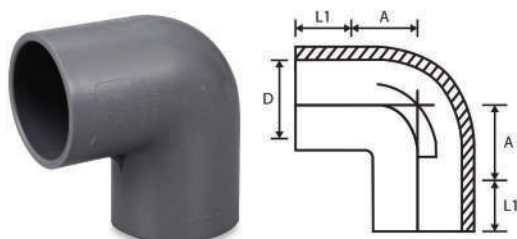


PRODUCT CODE	NOMINAL SIZE (mm)	DIMENSIONS (MM)		
		L1	T	D (+0.15)
F-FLG-080-GY	80	78.00	20.00	88.90
F-FLG-100-GY	100	96.00	20.00	114.30
F-FLG-155-GY	155	145.00	22.00	168.50

# PVC-U FITTINGS

## EQUAL ELBOW

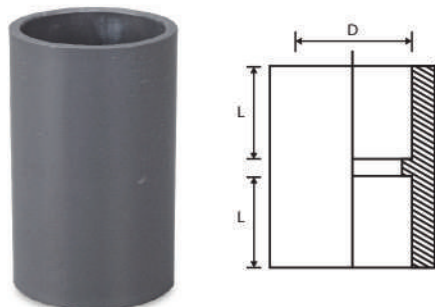
To solvent weld pipes at both ends.



PRODUCT CODE	NOMINAL SIZE (mm)	DIMENSIONS (MM)		
		L1	A	D (+0.15)
F-EE-032-GY	32	24.20	26.00	42.40
F-EE-040-GY	40	26.30	28.00	48.40
F-EE-050-GY	50	30.20	37.00	60.40
F-EE-080-GY	80	40.50	47.00	88.90
F-EE-100-GY	100	49.50	54.00	114.40
F-EE-155-GY	155	95.00	89.00	164.70

## DOUBLE END SOCKET

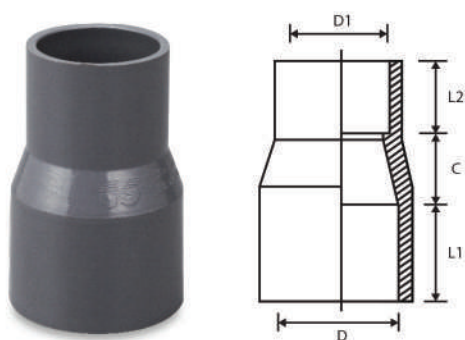
To solvent weld pipes at both ends.



PRODUCT CODE	NOMINAL SIZE (mm)	DIMENSIONS (MM)	
		L	D (+0.15)
F-DES-032-GY	32	36.30	42.25
F-DES-040-GY	40	32.50	48.30
F-DES-050-GY	50	46.50	60.45
F-DES-080-GY	80	55.20	89.00
F-DES-100-GY	100	87.30	114.40
F-DES-155-GY	155	164.60	112.10

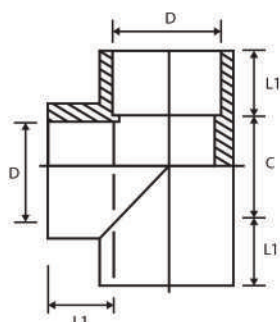
## REDUCING SOCKET

To solvent weld pipes of different diameters.



PRODUCT CODE	NOMINAL SIZE (mm)	DIMENSIONS (MM)				
		L1	L2	C	D (+0.15)	D1 (+0.15)
F-RS-050X040-GY	50X40	40.00	34.80	15.00	60.35	48.25
F-RS-100X050-GY	100X50	49.70	39.70	30.00	114.30	60.35
F-RS-100X080-GY	100X80	49.60	39.60	30.00	114.30	88.90
F-RS-155X100-GY	155X100	60.00	54.80	30.00	168.25	114.30

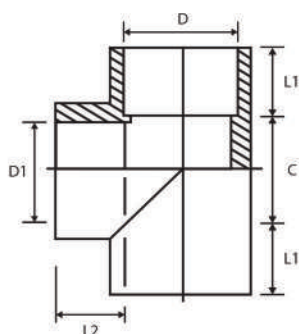
# PVC-U FITTINGS



## EQUAL TEE

To solvent weld pipes at both ends.

PRODUCT CODE	NOMINAL SIZE (mm)	DIMENSIONS (MM)		
		L1	C	D (+0.15)
F-TEE-032-GY	32	25.90	43.50	42.30
F-TEE-040-GY	40	26.00	50.00	48.35
F-TEE-050-GY	50	28.20	64.00	60.45
F-TEE-080-GY	80	46.80	98.00	88.90
F-TEE-100-GY	100	68.00	124.00	114.20
F-TEE-155-GY	155	79.00	174.00	165.20



## REDUCING TEE

To solvent weld pipes at both ends.

PRODUCT CODE	NOMINAL SIZE (mm)	DIMENSIONS (MM)				
		L1	L2	C	D (+0.15)	D1 (+0.15)
F-RT-080X020-GY	80X20	46.80	35.00	97.00	88.80	26.90
F-RT-080X025-GY	80X25	46.90	40.00	97.00	88.80	33.50
F-RT-080X050-GY	80X50	47.30	49.20	96.00	88.90	60.35
F-RT-100X050-GY	100X50	68.00	55.00	124.00	114.30	60.35
F-RT-100X080-GY	100X80	68.00	66.00	123.00	114.30	88.80

## PVC-U PRESSURE PIPES ASSEMBLY SYSTEMS

CS provides a full range service for our PVC-U pressure pipes for the convenience of our customers. We manufacture pipes, fittings and joinings including solvent cement and rubber joints. It is recommended to use CS's solvent cement on CS's pipes to ensure the best results.

There are 2 types of assembly systems for PVC-U pressure pipes: Solvent Cement and Rubbering Joint. Rubbering joints are exclusively for bell end pipes measuring 80mm to 300mm. Solvent Cement is used for plain end pipes from 15mm to 300mm.

### SOLVENT CEMENT ASSEMBLY SYSTEM



Solvent Cement is a cost effective and highly secure method for pipe assembly. It can be used on PVC-U pipes and socket end pipes. CS's Solvent Cement is recommended for use on PVC and PVC-U pipes. It features superior adhesion, fast setting, and waterproof bonding. Upon full cure, it is safe for drinking water, irrigation, waste water, sanitary pipes, conduits and more.

#### Features

- ◆ Reliable and highly secure bonding
- ◆ Cost effective as small amount is needed for each application
- ◆ Strong resistance to vibration and pulsation leaks
- ◆ Watertight adhesion
- ◆ Fast setting and easy installation

## BELL END RUBBERING JOINT FOR PVC-U PIPES



Rubbering refers to using a rubber ring or joint to attach 2 pipes. This method of attachment is unique to bell end pipes and is known as one of the best joining methods because of the simplicity and effectiveness. Jointing rings are pre-assembled by CS and supplied with the pipe.

The rubber ring in CS's pipes use the SRF S-20 Series Dual Hardness Seal, which is a one-piece construction seal consisting of hard rubber and soft rubber bonded firmly together without the need of a loose retaining ring. The hard rubber retains the geometry of the pipe seal and holds the pipe seal tightly in place. The soft rubber seals and is able to withstand the required pressure during the actual application. The exclusively designed "double compression lips" gives extra compression, hence providing an extra secure and reliable seal.

The ring lies on the tip of the spigot end of the pipe. When joined with another pipe, the rubbering is compressed down the barrel, forming a leak-free, watertight seal that is safe, secure and reliable for use under pressures of 0.9 MPa (9 bars), 1.2 MPa (12 bars) and 1.5 MPa (15 bars). A lubricant is required to ease the joining process, but there is no need to use solvent cement nor couplings.

### Features

- ◆ Unique assembly system for bell end pipes
- ◆ One push simple installation
- ◆ Rubber rings come pre-assembled and supplied with the pipe
- ◆ Cost saving as there is no need for solvent cement nor couplings
- ◆ Leak-free, watertight seal
- ◆ No risk of seal displacement during installation
- ◆ Superior resistance to vibration and pulsation leaks

### Assembly Instructions

1. Thoroughly clean the socket and spigot ends of the pipes to be joined and deburr if necessary. Check if the rubber ring is securely in place.
2. Lubricate the spigot of the mating pipe as far as the witness mark supplied with the pipe. Pay special attention to the chamfer. Do not lubricate the rubber ring or the ring groove.
3. Align the spigot with the socket and apply even pressure to push the spigot into the socket. Stop when the witness mark is just visible to allow for pipe expansion and contraction.
4. Brace the socket at the end of the line to prevent previously jointed pipes from closing up.

*\*Note: It is possible to joint 100mm to 150mm pipes by hand. However, larger pipes may require the use of a crowbar, wooden block or backhoe bucket.*

# POLYVINYL CHLORIDE (PVC) SOLVENT CEMENT

**CS** solvent cement is a formulated quality liquid adhesive which is used to create an airtight seal that holds PVC-U pipe and fittings together. Our solvent cement features strong bonding strength, fast-dry, slow-dry and waterproof seal. It is safe for drinking-water supply piping, sanitary pipes, water irrigation and etc. All of our solvent cement has been certified by Sirim QAS International in compliance with MS 628-4:2015. (equivalent to British Standard BS 4346 Part 3)



**Product Code: SSCPVC500-T**

Colour : Transparent (Fast Dry)  
Solid consists of : MEK & CYC



**Product Code: SSCPVC500-G**

Colour : Green (Fast Dry)  
Solid consists of : MEK & CYC



**Product Code: SSCPVC500-B**

Colour : Blue (Slow Dry)  
Solid consists of : MEK, CYC & THF

Solid content : 24%  
Consistency property : 1,000pcs

Quality : Tough & Resistance  
Comply to Standard : MS 628-4: 2015

- ◆ A highly soluble **FAST DRY** and **SLOW DRY** PVC-U Solvent cement is available.
- ◆ When applied, it will instantly dissolve and blend with the pipe to produce a film (wall) of 0.4mm thick, so that the fitting gap will be strong and stable.

## RECOMMENDATIONS ON BRUSH :-

A : Pipes with diameter 25mm (1") and below - recommended brush are provided with the can.

B : Pipes with diameter 32mm to 50mm (1 1/4" to 2") - use 1" brush

C : Pipes with diameter 75mm to 200mm (3" to 8" and above) - use 2" brush

## PRESSURE TEST

Cold Water (20°C)

Hot Water (60°C)

## TEST PRESSURE

Below 12kg/cm<sup>2</sup>(171psi)

Below 12kg/cm<sup>2</sup>(171psi)

## DRYING TIME

After 1 hour

After 2 hour

## MATERIAL SAFETY DATA SHEET

### COMPOSITION/INFORMATION ON INGREDIENT:

Ingredient	PVC Resin	Cyclohexanone	Methyl Isobuty Ketone (MIBK)	T.H.F.	Methyl Ethynl Keltone (MEK)
CAS No.	9003-22-9	108-94-1	141-79-7	109-99-9	78-93-3
% - volume	24%	30%	11%	4%	55%

## ESTIMATED SOLVENT CEMENT REQUIREMENT:-

NORMINAL/SIZES		Number of Possible Joints 500g
(IN.)	(MM)	
1/2	32	383
3/4	40	250
1	50	200
1 1/4	80	156

NORMINAL/SIZES		Number of Possible Joints 500g
(IN.)	(MM)	
1 1/2	40	100
2	50	69
3	80	41
4	100	32

NORMINAL/SIZES		Number of Possible Joints 500g
(IN.)	(MM)	
6	155	19
8	200	10
10	250	6
12	300	4

## PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Clear Flash Point : 15°C DG Class : 3.2

### Flammable Mixture (UN No. 1133)

This solvent cement material will ignite at ambient temperatures. Colourless vapors may travel considerable distance to ignition sources and cause flash fires or explosions.

### HAZARD IDENTIFICATION

May cause eyes and skin irritation, burns or dermatitis.

## STORAGE

Store in well-ventilated area. Keep away from heat, sparks and flame.

## SAFETY PHASE

- Keep away from sources of ignition - No-Smoking.
- Avoid contact with eyes.
- In case of fire, use chemical powder, foam or carbon dioxide.

# INSTALLATION GUIDE



## 1 Preparation

Prepare all the needed tools and equipment for the pipe installation.



## 2 Marking

Mark the socket depth on the pipe end.



## 3 Cutting the Pipe

Cut the pipe with the proper tool, using a fine-toothed saw.



## 4 Joint Preparation

Slightly deburr the external pipe edge and break off any sharp edges.



## 5 Cleaning

Thoroughly clean all surfaces to be joined. Any dirt, moisture, oil and other foreign material will affect the joining's integrity.



## 6 Test Dry Fit of the joint

Insert the spigot into the socket without the solvent cement to check the fit. An interference fit should occur between 1/3 and 2/3 of full entry.



## 7 Witness Mark the pipe

Draw a line on the spigot to show the depth of the socket.



## 8 Apply Solvent Cement on Pipe

Apply an even coat of solvent to the pipe marked for joining.



## 9 Apply Solvent Cement on Fitting

Apply an even coat of solvent to the inside of the spigot or socket.



## 10 Assembly of joint

While both parts to be joined are still wet, put the spigot into the socket in a slightly twisting motion. Hold the cemented joint idle for a minimum of 30 seconds for secure adhesion.



## 11 Clean off

Wipe off excess cement from the pipe at the end of the socket. Any gaps in the cement ring around the pipe perimeter may indicate a defective assembly.

# BELL-END PIPE INSTALLATION GUIDE

## Assembly Instructions



1 Ready all the preparation for bell end pipe installation.



2 Clean and wipe off the pipe inner or outer surface with cloth before the jointing of the pipe.



3 Fold the Dual Hardness Rubbing and ensure it allow to enter inside the bell end head.



4 Slowly place the Dual Hardness Rubbing inside bell end head and make sure it is to be fitted properly.



5 The right placing of the Dual Hardness Rubbing should be fitted as the picture shown.



6 Next, use the right Lubricant Wax and apply directly to the plain end pipe.



7 Once apply the lubricant, slowly joint the bell end pipe by pushing both head and end of the pipe until it reaches the maximum line marking.



8 Check and make sure the pipe are jointed correctly.



