


# ASTM PIPES \& FITTINGS 

## PLUMBING PIPES \& FITTINGS

## ASTM PIPES \& FITTINGS

Finolex ASTM Pipes are manufactured using the latest technology and high-grade raw material. These pipes are ideal for transportation and distribution of potable water, industrial process lines, saltwater lines, swimming pools, pipes used for hand pumps, and in down-take lines in plumbing systems.

Manufactured with added strength and crafting precision, Finolex PVC-U pipes have a prolonged advantage over conventional pipes as they can last for over 50 years, surpassing most or all traditional metal and other plastic pipes. This lightweight product's abrasion resistance, mechanical strength, toughness, and durability are the key reasons why 'Finolex Pipes' is the category leader of housing and potable water applications in the plumbing industry.

These pipes are manufactured using a lead-free compound and do not have any adverse effects on the environment. Our stringent quality assurance approach across all stages of manufacturing gives this product a high degree of reliability, making Finolex ASTM plumbing pipes a preferred choice of leading MEP consultants, architects, builders, plumbing contractors, plumbers, and quality conscious people across the country.

Manufactured in accordance with ASTM D 1785 standards, these pipes are available in schedule 40 \& 80 series, with a standard lengths of 3 and 6 meters, in plain or threaded ends options.

## PIPE DERATING FACTOR

PVC-U ASTM plumbing pipes can be used at higher pressure ratings at a water temperature of $23^{\circ} \mathrm{C}$. As the temperature of water increases, the working pressure reduces (e.g. if the working pressure is $100 \%$ at $23^{\circ} \mathrm{C}$, it will be $50 \%$ at $45^{\circ} \mathrm{C}$ and only $22 \%$ at $60^{\circ} \mathrm{C}$ ). These pipes may be used for water temperatures up to $45^{\circ} \mathrm{C}$. However, occasional rise in temperature does not have any adverse effect on the life of the product.

| Service Temperature $\left({ }^{\circ} \mathrm{C}\right)$ | 23 | 30 | 35 | 40 | 45 | 50 | 55 | 60 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $\%$ of working pressure | 100 | 90 | 75 | 62 | 50 | 40 | 30 | 22 |

## DIMENSIONS OF ASTM PIPES

As per ASTM D 1785

| Nominal Size (inch) | $\begin{aligned} & \text { Size } \\ & (\mathrm{mm}) \end{aligned}$ | Ref. size (mm) | Outside <br> Diameter (mm) | SCHEDULE 40 |  | SCHEDULE 80 |  | Std. <br> Length <br> (meter) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | $\qquad$ | Working Pressure kgf/cm ${ }^{2}$ | $\qquad$ | Working Pressure kgf/cm ${ }^{2}$ |  |
| $1 / 2{ }^{\prime \prime}$ | 15 | 21.34 | 21.34( $\pm 0.10)$ | 2.77(+0.51) | 41.4 | 3.73 (+0.51) | 58.6 | 3,6 |
| $3 / 4$ " | 20 | 26.67 | 26.67( $\pm 0.10)$ | 2.87(+0.51) | 33.1 | 3.91(+0.51) | 47.6 | 3,6 |
| $1{ }^{\prime \prime}$ | 25 | 33.40 | 33.40( $\pm 0.13)$ | 3.38(+0.51) | 31.0 | 4.55(+0.53) | 43.4 | 3,6 |
| 11/4" | 32 | 42.16 | 42.16( $\pm 0.13$ ) | 3.56(+0.51) | 25.5 | 4.85(+0.58) | 35.9 | 3,6 |
| $11 / 2$ " | 40 | 48.26 | 48.26( $\pm 0.15)$ | 3.68(+0.51) | 22.8 | 5.08(+0.61) | 32.4 | 3,6 |
| $2{ }^{\prime \prime}$ | 50 | 60.32 | 60.32( $\pm 0.15)$ | $3.91(+0.51)$ | 19.3 | 5.54(+0.66) | 27.6 | 3,6 |
| 21/2" | 65 | 73.02 | 73.02( $\pm 0.18)$ | $5.16(+0.61)$ | 20.7 | 7.01(+0.84) | 29.0 | 3,6 |
| $3 "$ | 80 | 88.90 | 88.90( $\pm 0.20)$ | 5.49(+0.66) | 17.9 | 7.62(+0.91) | 25.5 | 3,6 |
| 4" | 100 | 114.30 | 114.30( $\pm 0.23)$ | $6.02(+0.71)$ | 15.2 | 8.56(+1.02) | 22.1 | 3,6 |
| $6{ }^{\prime \prime}$ | 150 | 168.28 | 168.28( $\pm 0.28)$ | 7.11(+0.86) | 12.4 | 10.97(+1.32) | 19.3 | 3,6 |
| 8" | 200 | 219.08 | 219.08( $\pm 0.38)$ | 8.18(+0.99) | 11.0 | 12.70(+1.52) | 17.2 | 3,6 |



## DIMENSIONS OF ASTM PIPES - THREADED

| Nominal Size (inch) | $\begin{aligned} & \text { Size } \\ & (\mathrm{mm}) \end{aligned}$ | Ref. size (mm) | Outside Diameter (mm) | SCHEDULE 40 | SCHEDULE 80 | Std. <br> Length <br> (meter) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | ```Wall Thickness (t) (mm)``` | ```Wall Thickness (t) (mm)``` |  |
| $1 / 2$ | 15 | 21.34 | 21.34( $\pm 0.10)$ | 2.77(+0.51) | 3.73(+0.51) | 3,6 |
| $3 / 4$ " | 20 | 26.67 | 26.67( $\pm 0.10)$ | 2.87(+0.51) | 3.91(+0.51) | 3,6 |
| $1{ }^{\prime \prime}$ | 25 | 33.40 | 33.40( $\pm 0.13$ ) | $3.38(+0.51)$ | 4.55(+0.53) | 3,6 |
| 1114" | 32 | 42.16 | 42.16( $\pm 0.13)$ | $3.56(+0.51)$ | 4.85(+0.58) | 3,6 |
| $1112{ }^{\prime \prime}$ | 40 | 48.26 | 48.26( $\pm 0.15)$ | $3.68(+0.51)$ | 5.08(+0.61) | 3,6 |
| $2{ }^{\prime \prime}$ | 50 | 60.32 | 60.32( $\pm 0.15)$ | 3.91(+0.51) | 5.54(+0.66) | 3,6 |
| 21/2" | 65 | 73.02 | 73.02( $\pm 0.18)$ | 5.16(+0.61) | 7.01(+0.84) | 3,6 |
| $3{ }^{\prime \prime}$ | 80 | 88.90 | 88.90 $\pm 0.20)$ | $5.49(+0.66)$ | 7.62(+0.91) | 3,6 |
| $4 "$ | 100 | 114.30 | 114.30 $( \pm 0.23)$ | $6.02(+0.71)$ | 8.56(+1.02) | 3,6 |

Batch number logic:

| Year | Month | Day | Mc.No. | Shift |
| :---: | :---: | :---: | :---: | :---: |
| xxxx | xx | xx | xxx | x |

For example, the batch number of pipes produced on Mc. no. 20 on 1st June 2021 in the 1st shift will be 202106010201

## ASTM FITTINGS AT A GLANCE

SCH-80 (As per ASTM D-2467)

| Type of Fittings | Size in inch |
| :---: | :---: |
| COUPLER | $1 / 2$ " to 8 " |
| ELBOW $90{ }^{\circ}$ | $1 / 2$ " to 8 " |
| ELBOW $90^{\circ}$ - THREADED | $1 / 2$ " to 2 " |
| ELBOW $90^{\circ}-\mathrm{BRASS}$ INSERT | $1 / 2$ " to 1 " |
| ELBOW 45 ${ }^{\circ}$ | $1 / 2$ " to 8 " |
| TEE | $1 / 2{ }^{\prime \prime}$ to 8" |
| CROSS TEE | $1 / 2{ }^{\prime \prime}$ to 1" |
| TEE THREADED | $1 / 2{ }^{\prime \prime}$ to 2" |
| TEE-BRASS INSERT | $1 / 2^{\prime \prime}$ to $1^{\prime \prime}$ |
| END CAP | $1 / 2$ " to 8 " |
| MALE THREADED ADAPTER (M.T.A.) | $1 / 2$ " to 4" |
| MALE THREADED ADAPTER (M.T.A.) - BRASS INSERT | $1 / 2{ }^{\prime \prime}$ to 3" |
| FEMALE THREADED ADAPTER (F.T.A.) | $1 / 2$ " to 4" |
| FEMALE THREADED ADAPTER (F.T.A.) - BRASS INSERT | $1 / 2{ }^{\prime \prime}$ to $3^{\prime \prime}$ |
| UNION | $1 / 2{ }^{\prime \prime}$ to 4" |
| STEP OVER BEND | $1 / 2{ }^{\prime \prime}$ to ${ }^{\prime \prime}$ |
| TANK NIPPLE | $1 / 2{ }^{\prime \prime}$ to 4" |
| TANK NIPPLE SOCKET END | $1 / 2$ " to 2 " |
| PIPE CLIP | $1 / 2$ " to 4" |

ACCESSORIES

| Type of Fittings | Size in <br> inch |
| :--- | :---: |
| THREADED END PLUG | $1 / 22^{\prime \prime}$ to $3 / 4 "$ |
| POWDER COATED METAL CLAMP FOR ASTM PIPE | $1 / 2$ " to $2 "$ |

SCH-80 (As per ASTM D-2467)

| Type of Fittings | Size in inch |
| :---: | :---: |
| COMPACT BALL VALVE | ½ to 4" |
| UPVC BALL VALVE | 1/2" to 2" |
| BALL VALVE ACCESSORIES - BLUE HANDLE | 1/2" to 2" |
| REDUCER | $3 / 4$ " to 4" |
| REDUCING BUSH | 3/4" to 6" |
| REDUCING ELBOW $90^{\circ}$ | 3/4" to 1" |
| REDUCING TEE | $3 / 4$ " to 4" |
| REDUCING ELBOW $90^{\circ}$ - BRASS INSERT | 3/4" to 1" |
| REDUCING TEE - BRASS INSERT | $3 / 4$ " to $11 / 4{ }^{\prime \prime}$ |
| REDUCING MALE THREADED ADAPTER (M.T.A.) | $3 / 4{ }^{\prime \prime} \times 1 / 2^{\prime \prime}$ |
| REDUCING MALE THREADED ADAPTER (M.T.A.) BRASS INSERT | 3/4" to 1" |
| REDUCING FEMALE THREADED ADAPTER (F.T.A.) BRASS INSERT | 3/4" to 1" |
| HEX NIPPLE | 1/2" to 2" |
| NON RETURN VALVE | $3 / 4$ " to 1" |
| CONVERTER COUPLER UPVC - AGRI | $1 / 2$ " to $1^{\prime \prime}$ |
| CONVERTER COUPLER UPVC - CPVC | $1 / 2$ to $11 / 2{ }^{\prime \prime}$ |
| SWEEP BEND | 1/2" to $11 / 4$ " |
| Y STRAINER | $1{ }^{\prime \prime}$ |

As per ISO-4422

| Type of Fittings | Size in <br> inch |
| :--- | :---: |
| FAUCET VALVE | $1 / 2{ }^{\prime \prime}$ |

## ASTM FITTINGS

As per ASTM D 2467 in Schedule 80 series
Fittings for ASTM Plain ended pipes are available in Schedule 80 series. The joint formed is a permanent and homogeneous joint using Finolex solvent cement.


## COUPLER

To join two lengths of pipes

| mm | 15 | 20 | 25 | 32 | 40 | 50 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| inch | $1 / 2^{\prime \prime}$ | $3 / 4^{\prime \prime}$ | $1 "$ | $1 \frac{1}{4} 4^{\prime \prime}$ | $1 \frac{1}{2 "}$ | $2 "$ |
| mm | 65 | 80 | 100 | 150 | 200 |  |
| inch | $21 / 2^{\prime \prime}$ | $3^{\prime \prime}$ | $4 "$ | $6^{\prime \prime}$ | $8^{\prime \prime}$ |  |



## ELBOW 90 ${ }^{\circ}$

To give a $90^{\circ}$ turn to a pipeline

| mm | 15 | 20 | 25 | 32 | 40 | 50 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| inch | $1 / 2{ }^{1}$ | $3 / 41$ | $1{ }^{\prime \prime}$ | 11/4" | 11/2" | $2 "$ |
| mm | 65 | 80 | 100 | 150 | 200 |  |
| inch | 21⁄2" | $3 "$ | 4" | $6 "$ | 8" |  |

## ELBOW 90² THREADED

To give a $90^{\circ}$ turn to a pipeline and connect male threaded pipes and fittings

| $m m$ | 15 | 20 | 25 | 32 | 40 | 50 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| inch | $1 / 2^{\prime \prime}$ | $3 / 4^{\prime \prime}$ | $1^{\prime \prime}$ | $1 \frac{1}{4}{ }^{\prime \prime}$ | $1^{\prime \prime} 2^{\prime \prime}$ | $2^{\prime \prime}$ |

ELBOW $90^{\circ}$ - BRASS INSERT
To connect male threaded CP/Metal fittings like taps, showers etc to a pipeline

| mm | 15 | 20 | 25 |
| :--- | :--- | :--- | :--- |
| inch | $1 / 2^{\prime \prime}$ | $3 / 4 "$ | $1^{\prime \prime}$ |

ELBOW 45 ${ }^{\circ}$
To give a $45^{\circ}$ turn to a pipeline

| 15 | 20 | 25 | 32 | 40 | 50 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| $1 / 2^{\prime \prime}$ | $3 / 4 "$ | $1 "$ | $11 / 4^{\prime \prime}$ | $1 \frac{1}{2 \prime}$ | $2 "$ |
| 65 | 80 | 100 | 150 | 200 |  |
| $21 / 2^{\prime \prime}$ | $3 "$ | $4 "$ | $6 "$ | $8 "$ |  |



TEE
To take a bypass or a service line from a main line

| 15 | 20 | 25 | 32 | 40 | 50 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| $1 / 2 "$ | $3 / 4 "$ | $1^{\prime \prime}$ | $11 / 4^{\prime \prime}$ | $1 \frac{1}{2 "}$ | $2 "$ |
| 65 | 80 | 100 | 150 | 200 |  |
| $21 \frac{12}{\prime \prime}$ | $3^{\prime \prime}$ | $4^{\prime \prime}$ | $6^{\prime \prime}$ | $8^{\prime \prime}$ |  |



## TEE - BRASS INSERT

To connect a male threaded CP/Metal fitting like taps, showers, etc to a pipeline

| mm | 15 | 20 | 25 |
| :--- | :--- | :--- | :--- |
| inch | $1 / 2^{\prime \prime}$ | $3 / 4^{\prime \prime}$ | $1^{\prime \prime}$ |



## END CAP

To plug the end of a pipeline

| mm | 15 | 20 | 25 | 32 | 40 | 50 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| inch | $1 / 2^{\prime \prime}$ | $3 / 4^{\prime \prime}$ | $1 "$ | $11 / 4^{\prime \prime}$ | $1 \frac{1}{2} 2^{\prime \prime}$ | $2 "$ |
| mm | 65 | 80 | 100 | 150 | 200 |  |
| inch | $21 / 2^{\prime \prime}$ | $3^{\prime \prime}$ | $4^{\prime \prime}$ | $6^{\prime \prime}$ | $8^{\prime \prime}$ |  |



## THREADED END PLUG

Threaded end plug for pressure testing

| $m m$ | 15 | 20 |
| :--- | :--- | :--- |
| inch | $1 / 2^{\prime \prime}$ | $3 / 4 "$ |



## MALE THREADED ADAPTER (M.T.A.)

To connect female threaded fittings to pipeline

| mm | 15 | 20 | 25 | 32 | 40 | 50 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| inch | $1 / 2^{\prime \prime}$ | $3 / 4^{\prime \prime}$ | $1 "$ | $11 / 4^{\prime \prime}$ | $1 \frac{1}{2} 2^{\prime \prime}$ | $2 "$ |
| mm | 65 | 80 | 100 |  |  |  |
| inch | $21 / 2^{\prime \prime}$ | $3 "$ | $4 "$ |  |  |  |

## MALE THREADED ADAPTER (M.T.A.)- <br> BRASS INSERT

To connect female threaded CP/Metal fittings like taps, showers etc. to a pipeline

| mm | 15 | 20 | 25 | 32 | 40 | 50 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| inch | $1 / 2^{\prime \prime}$ | $3 / 4^{\prime \prime}$ | $1^{\prime \prime}$ | $11 / 4^{\prime \prime}$ | $1 \frac{1}{2 \prime}$ | $2 "$ |
| $m m$ | 65 | 80 |  |  |  |  |
| minch | $21 / 2^{\prime \prime}$ | $3^{\prime \prime}$ |  |  |  |  |

FEMALE THREADED ADAPTER (F.T.A.)
To connect male threaded fittings to a pipeline

| mm | 15 | 20 | 25 | 32 | 40 | 50 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| inch | $1 / 2 "$ | $3 / 4 "$ | $1 "$ | $11 / 4 "$ | $11 / 2^{\prime \prime}$ | $2 "$ |
| $m m$ | 65 | 80 | 100 |  |  |  |
|  | $21 / 2^{\prime \prime}$ | $3^{\prime \prime}$ | $4 "$ |  |  |  |

## FEMALE THREADED ADAPTER (F.T.A.)BRASS INSERT

To connect male threaded CP/Metal fittings like taps, showers etc to a pipeline

| mm | 15 | 20 | 25 | 32 | 40 | 50 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| inch | $1 / 2^{\prime \prime}$ | $3 / 4^{\prime \prime}$ | $1 "$ | $11 / 4^{\prime \prime}$ | $1 \frac{1}{2 \prime \prime}$ | $2 "$ |
| $m m$ | 65 | 80 |  |  |  |  |
| minch | $21 / 2^{\prime \prime}$ | $3^{\prime \prime}$ |  |  |  |  |

$\frac{111}{111}$

## UNION

To allow quick and convenient disconnection of pipes for maintenance or fixture replacement

| mm | 15 | 20 | 25 | 32 | 40 | 50 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| inch | $1 / 2^{\prime \prime}$ | $3 / 4^{\prime \prime}$ | $1 "$ | $11 / 4^{\prime \prime}$ | $1 \frac{1}{2 \prime}$ | $2 "$ |
| mm | 65 | 80 | 100 |  |  |  |
| inch | $21 / 2^{\prime \prime}$ | $3^{\prime \prime}$ | $4 "$ |  |  |  |

## STEP OVER BEND

To cross over an existing pipeline

| $m m$ | 15 | 20 | 25 | 32 | 40 | 50 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| inch | $1 / 2^{\prime \prime}$ | $3 / 4^{\prime \prime}$ | $1^{\prime \prime}$ | $11 / 4^{\prime \prime}$ | $11 / 2^{\prime \prime}$ | $2^{\prime \prime}$ |

## TANK NIPPLE

To connect the pipeline to a tank

| mm | 15 | 20 | 25 | 32 | 40 | 50 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| inch | 1⁄2" | $3 / 4$ " | $1{ }^{\prime \prime}$ | 11/4" | $11 / 2 "$ | $2{ }^{\prime \prime}$ |
| mm | 65 | 80 | 100 |  |  |  |
| inch | 21⁄2" | $3 "$ | $4 "$ |  |  |  |



## TANK NIPPLE - SOCKET END

To connect the pipeline to a tank. A socket is provided at one end of the tank nipple for connecting directly with the pipe
inch

## POWDER COATED METAL CLAMP

 FOR ASTM PIPETo fix and secure the pipeline to a wall or a flat surface



UPVC BALL VALVE
To allow quick and convenient disconnection of water supply

| mm | 15 | 20 | 25 | 32 | 40 | 50 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| inch | $1 / 2^{\prime \prime}$ | $3 / 4^{\prime \prime}$ | $1^{\prime \prime}$ | $1 \frac{1}{4 \prime}$ | $1 \frac{1}{2 \prime}$ | $2^{\prime \prime}$ |

##  <br> BALL VALVE ACCESSORIES - BLUE HANDLE <br> To use for on/off movement of Ball Valve <br> BALL VALVE ACCESSORIES - BLUE HANDLE To use for on/off movement of Ball Valve mm | 15 | 20 | 25 | 32 | 40 | 50 |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| inch | $1 / 2^{\prime \prime}$ | $3 / 4^{\prime \prime}$ | $1 "$ | $11 / 4^{\prime \prime}$ | $112^{\prime \prime}$ | $2 "$ |



## REDUCER

To reduce the main line

| mm | $20 \times 15$ | $25 \times 15$ | $25 \times 20$ | 32X15 | $32 \times 20$ | $32 \times 25$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| inch | $3 / 4 " \times 1 / 2$ " | 1 "x ${ }^{1 / 2}{ }^{\prime \prime}$ | $1 " \times 3 / 4 "$ | $11 / 4{ }^{1} x^{1 / 2}{ }^{\prime \prime}$ | $11 / 4 . x^{3} / 4$ " | $11 / 4 " \times 1$ " |
| mm | 40x15 | $40 \times 20$ | $40 \times 25$ | $40 \times 32$ | 50X15 | 50X20 |
| inch | $11 / 2{ }^{17} \times 1 / 2^{\prime \prime}$ | $11 / 2{ }^{1} x^{3} / 4 "$ | 11⁄2"x1" | 11⁄2"x11⁄4" | 2 "x¹⁄2" | 2 "x $3 / 4$ " |
| mm | $50 \times 25$ | 50x32 | 50x40 | $65 \times 15$ | 65X20 | 65X25 |
| inch | 2"x1" | 2"x11⁄4" | 2"x1½" | $21 / 2{ }^{1} x^{1 / 2}{ }^{\prime \prime}$ | $21 / 2{ }^{1} x^{3} / 4{ }^{\prime \prime}$ | 2½"x1" |
| mm | 65X32 | 65X40 | 65X50 | 80X15 | 80×20 | 80X 25 |
| inch | 21⁄2"x11/4" | 2½"x1½" | 212"x2" | 3 "x12" | 3 "x3/4" | 3"x1" |
| mm | 80×32 | 80×40 | 80×50 | 80X65 | 100×15 | 100×20 |
| inch | $3 " \times 11 / 4 "$ | $3 " \times 1 \frac{1}{2}{ }^{\prime \prime}$ | 3"x2" | $3 " \times 21 / 2{ }^{\prime \prime}$ | 4"x½" | 4"x3/4" |
| mm | 100×25 | 100X32 | 100X 40 | 100X50 | 100X65 | 100×80 |
| inch | 4"x1" | 4"x114" | 4"x1½" | 4"x2" | 4"x212" | 4"x3" |



## REDUCING BUSH

To reduce the internal diameter of fittings
COMPACT BALL VALVE
To allow quick and convenient disconnection of water supply

| 20X15 | 25x15 | $25 \times 20$ | 32X15 | $32 \times 20$ | $32 \times 25$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $3 / 4 " \times 1 / 2$ " | 1 "x $1_{2}$ " | 1 "x3/4" | $11 / 4$ " ${ }^{1 / 2}$ " | $11 / 4 . x^{3} / 4$ " | 11/4"x1" |
| 40x15 | 40x20 | $40 \times 25$ | $40 \times 32$ | 50X15 | 50X20 |
| $11 / 2{ }^{1} x^{1} / 2{ }^{\prime \prime}$ | $11 / 2{ }^{1} x^{3} / 4$ " | 1122"x1" | $11 / 2$ "x11/4" | 2 "x¹/2" | $2 " x \frac{3}{4} / 4$ |
| 50x25 | $50 \times 32$ | 50x40 | 65X50 | 80X40 | 80X50 |
| 2"x1" | 2"x114" | 2 "x11⁄2" | 21⁄2"x2" | 3"x112" | 3"x2" |
| 80X65 | 100×50 | 100×80 | $150 \times 100$ |  |  |
| 3 "x2½" | 4"x2" | 4"x3" | 6"x4" |  |  |

## PIPE CLIP

To fix and secure the pipeline to a wall or a flat surface.

| mm | 15 | 20 | 25 | 32 | 40 | 50 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| inch | $1 / 2^{\prime \prime}$ | $3 / 4^{\prime \prime}$ | $1^{\prime \prime}$ | $11 / 4^{\prime \prime}$ | $1 \frac{1}{2 \prime}$ | $2 "$ |
| mm | 65 | 80 | 100 |  |  |  |
| inch | $21 / 2^{\prime \prime}$ | $3^{\prime \prime}$ | $4^{\prime \prime}$ |  |  |  |



REDUCING ELBOW $90^{\circ}$
To give a $90^{\circ}$ turn and connect with a reduced pipeline

| mm | $20 \times 15$ | $25 \times 15$ | $25 \times 20$ |
| :--- | :--- | :--- | :--- |
| inch | $3 / 4^{\prime \prime} x^{1} / 2^{\prime \prime}$ | $1^{\prime \prime} x^{1} / 2^{\prime \prime}$ | $1 " x^{3} / 4^{\prime \prime}$ |

## REDUCING TEE

To take a reducing bypass or service line from main line

| mm | 20X15 | $25 \times 15$ | $25 \times 20$ | 32X15 | $32 \times 20$ | $32 \times 25$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| inch | 3/4"x1/2" | $1 " x 1 / 2{ }^{1}$ | $1 " x^{3 / 4}{ }^{\prime \prime}$ | $11 / 4{ }^{1} x^{1 / 2}{ }^{\prime \prime}$ | $11 / 4$ "x ${ }^{3} / 4$ | 11/4"x1" |
| mm | $40 \times 15$ | $40 \times 20$ | $40 \times 25$ | $40 \times 32$ | 50X15 | 50X20 |
| inch | $11 / 2{ }^{1} x^{1 / 2}{ }^{\prime \prime}$ | $11 / 2{ }^{1} x^{3} / 4{ }^{\prime \prime}$ | 112"x1" | 11⁄2"x11/4" | $2 \mathrm{x} \times 1 / 2 \mathrm{~L}$ | $2 \mathrm{x} \times 3 / 4$ " |
| mm | $50 \times 25$ | $50 \times 32$ | 50x40 | $65 \times 15$ | 65X20 | 65X25 |
| inch | 2"x1" | $2 " x 11 / 4 "$ | 2 "x112" | $21 / 2{ }^{1} x^{1 / 2}{ }^{\prime \prime}$ | $21 / 2{ }^{1} x^{3} / 4{ }^{\prime \prime}$ | $21 / 2{ }^{1 \times 1}$ |
| mm | 65X32 | 65X40 | 65X50 | 80×15 | 80×20 | 80X 25 |
| inch | 2½"x1¼" | 2½"x112" | 212"x2" | $3 \mathrm{x} \times 1 / 2 \mathrm{~L}$ | $3 \mathrm{x} \mathrm{x}^{3 / 4}$ | $3 " x 1$ " |
| mm | 80X32 | 80×40 | 80X50 | 80X65 | 100×15 | 100×20 |
| inch | $3 " x 11 / 4 "$ | $3 " x 11 / 2$ " | 3"x2" | $3 " x 21 / 2$ " | 4"x½" | 4"x3/4" |
| mm | 100X25 | 100X32 | 100X 40 | 100×50 | 100X65 | 100×80 |
| inch | 4"x1" | 4"x114" | 4"x1½" | 4"x2" | 4"x212" | 4"x3" |

REDUCING ELBOW $90^{\circ}$ - BRASS INSERT
To connect male threaded CP/Metal fittings
like taps, showers etc to a pipeline

| $m m$ | $20 \times 15$ | $25 \times 15$ | $25 \times 20$ |
| :--- | :--- | :--- | :--- |
| inch | $3 / 4 " x^{1} / 2^{\prime \prime}$ | $1 " x^{1} / 2 "$ | $1 " x^{3} / 4 "$ |

REDUCING TEE - BRASS INSERT
To connect male threaded CP/Metal fittings like taps, showers etc to a pipeline

| mm | 20X15 | $25 \times 15$ | $25 \times 20$ | $32 \times 15$ |
| :---: | :---: | :---: | :---: | :---: |
| inch | $3 / 4 " \times 1 / 2{ }^{1}$ | $1 " x 1 / 2 "$ | 1 "x³/4 | 11/4"x¹/2" |

## REDUCING MALE THREADED

 ADAPTER (M.T.A.)To connect female threaded fittings to a pipeline
mm 20X15
inch $\quad 3 / 4$ " $x^{1 / 2} 2^{\prime \prime}$


## REDUCING FEMALE THREADED

 ADAPTER (F.T.A.) - BRASS INSERTTo connect male threaded CP/Metal fittings like taps, showers etc. to a pipeline

| mm | $20 \times 15$ | $25 \times 15$ | $25 \times 20$ |
| :--- | :--- | :--- | :--- |
| inch | $3 / 4^{\prime \prime} x^{1} 1 / 2^{\prime \prime}$ | $1^{\prime \prime} x^{1 / 2 "}$ | $1^{\prime \prime} x^{3} / 4^{\prime \prime}$ |


(II) FAUCET VALVE
To allow quick and convenient disconnection of water supply

```
inch 1/2" 1/2"
```

HEX NIPPLE
To connect two female threaded fittings on either side.

## NON RETURN VALVE

To allow/control flow of water in only one direction
2025
inch

| 15 | 20 | 25 | 32 | 40 | 50 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| $1 / 2^{\prime \prime}$ | $3 / 4^{\prime \prime}$ | $1^{\prime \prime}$ | $11 / 4^{\prime \prime}$ | $1 \frac{1}{2} 2^{\prime \prime}$ | $2^{\prime \prime}$ |



CONVERTER COUPLER UPVC - AGRI
To connect/join ASTM UPVC pipes to Agri pipes

inch $1 / 2^{\prime \prime} \quad 1$ "


CONVERTER COUPLER UPVC - CPVC
To connect/join ASTM UPVC pipes to CPVC pipes

| mm | 15 | 20 | 25 | 32 | 40 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| inch | $1 / 2^{\prime \prime}$ | $3 / 4^{\prime \prime}$ | $1^{\prime \prime}$ | $1 \frac{1}{4 \prime \prime}$ | $1^{\prime \prime} 2^{\prime \prime}$ |

## SWEEP BEND

To give a $90^{\circ}$ turn to a pipeline for smooth water flow

| mm | $20 \times 15$ | $25 \times 15$ | $25 \times 20$ |
| :--- | :--- | :--- | :--- |
| inch | $3 / 4 " x^{1 / 2 "}$ | $1 " x^{1 / 2 "}$ | $1 " x^{3} / 4^{\prime \prime}$ |

mm
inch

| 15 | 20 | 25 | 32 |
| :--- | :--- | :--- | :--- |
| $1 / 2^{\prime \prime}$ | $3 / 4^{\prime \prime}$ | $1^{\prime \prime}$ | $11 / 4^{\prime \prime}$ |



## FEATURES AND BENEFITS

No batch variation due to stringent quality controls


Lightweight, ensuring ease of handling and transportation

Low installation and maintenance costs

Added mechanical strength makes the system
ideal for all applications and conditions

Smooth inner surfaces allow a greater flow of water

5
Suitable for potable water transportation

Lead-free

Self-extinguishing and does not support combustion


Jointing can be done without the laborious threading operations

UV stabilised, ensuring protection from direct sunlight


High tensile strength can withstand internal operating pressures within an acceptable range of temperatures

Meets global standards for housing and industry applications


Heavy pressure rating


Tough, durable and immune to termites, fungus, bacteria, algae formation, galvanic and electrolytic action

Corrosion-free and chemical resistant (Immune to acids, alkalis, organic chemicals, oils, etc.)

Low thermal conductivity, preventing external "sweating"

## APPLICATIONS

Finolex ASTM plumbing pipes are designed for potable water distribution as well as plumbing applications. They can be successfully used for:

## 3 <br> Cold water plumbing applications in buildings

Piping systems for swimming pools


Pipes for hand pumps
$\pm$

## Salt water lines



Ring lines/down-take lines


Aggressive corrosive fluid transportation

Industrial process lines. (Based on chemical resistance chart)

Sugar, paper, and distillery lines

Note: Not suitable for compressed air and gases.

## HEAVY PRESSURE PLUMBING PIPES - 15KG

Conforming to IS 4985


Heavy pressure plumbing pipes are available in metric sizes ranging from 20 mm to 50 mm in a standard length of 6 meters and are plain at both ends. These pipes are joined using Finolex solvent cement. The pipes are offered in grey color with color coordinated fittings in dark grey.

DIMENSIONS OF HEAVY PRESSURE PLUMBING PIPES

| Nominal <br> Size <br> (inch) | Size <br> (mm) | Wall <br> Thickness <br> in mm (min) | Wall <br> Thickness <br> in mm (max) | Std. <br> Length <br> (meter) |
| :---: | :---: | :---: | :---: | :---: |
| $1 / 2^{\prime \prime}$ | 20 | 2.80 | 3.30 | 6 |
| $3 / 4^{\prime \prime}$ | 25 | 2.90 | 3.40 | 6 |
| $1^{\prime \prime}$ | 32 | 3.40 | 3.90 | 6 |
| $11 / 4^{\prime \prime}$ | 40 | 3.60 | 4.20 | 3,6 |
| $11 / 2^{\prime \prime}$ | 50 | 3.70 | 4.30 | 6 |

## FINOLEX SOLVENT CEMENTS \& PRIMER FOR ASTM PIPES \& FITTINGS

## Medium duty PVC-U Solvent Cement

Medium duty PVC-U solvent cement for plumbing applications up to 50 mm (2") (Meets ASTM D 2564 standard)

| ml | 118 | 237 | 473 |
| :---: | :---: | :---: | :---: |
| Container | Tin | Tin | Tin |

Heavy duty PVC-U solvent cement
Heavy duty PVC-U solvent cement for plumbing applications above 50 mm (2")
(Meets ASTM D 2564 standard)
Container
(2inoler

## Primer



Primer for PVC-U plumbing applications (Meets ASTM F 656)
ml 237
Container Tin

## SOLVENT CEMENT \& PRIMER



## JOINTING OF FINOLEX ASTM PIPES \& FITTINGS:

1. Measuring

2. Check dry-fit


## 2. Cutting


3. Deburring and chamfering

6. Solvent cement application

4. Cleaning

7. Assembly


## SET AND CURE SCHEDULE GUIDELINES

## AVERAGE INITIAL SET SCHEDULE

Set schedule is the necessary time to be allowed before the joint can be carefully handled. (In damp or humid weather allow 50\% more set time.)

| Temperature Range | Pipe Sizes | Pipe Sizes | Pipe Sizes |
| :---: | :---: | :---: | :---: |
| Temperature range <br> during assembly and <br> setting period | $1 / 2^{\prime \prime}$ to $1 \frac{1}{4^{\prime \prime}}$ | $1 \frac{1}{2^{\prime \prime}}$ to $2^{\prime \prime}$ | $21^{\prime \prime \prime}$ to $8^{\prime \prime}$ |
| $16^{\circ} \mathrm{C}$ to $38^{\circ} \mathrm{C}$ | 2 minutes | 5 minutes | 30 minutes |
| $5^{\circ} \mathrm{C}$ to $16^{\circ} \mathrm{C}$ | 5 minutes | 10 minutes | 2 hours |
| $-18^{\circ} \mathrm{C}$ to $5^{\circ} \mathrm{C}$ | 10 minutes | 15 minutes | 12 hours |

## AVERAGE JOINT CURE SCHEDULE

Joint cure schedule is the necessary time to be allowed before pressurizing the system. (In damp or humid weather allow 50\% more set time.)

| Temperature Range | Pipe Sizes |  | Pipe Sizes |  | Pipe Sizes |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Temperature range | $1 / 2^{\prime \prime}$ to $11 / 4^{\prime \prime}$ |  | $11 / 2^{\prime \prime}$ to $2^{\prime \prime}$ |  | $21 / 2^{\prime \prime}$ to $8^{\prime \prime}$ |  |
| during assembly and setting period | Up to 11 $\mathrm{Kg} / \mathrm{cm}^{2}$ | $\begin{aligned} & 11 \text { to } 22 \\ & \mathrm{Kg} / \mathrm{cm}^{2} \end{aligned}$ | Up to 11 $\mathrm{Kg} / \mathrm{cm}^{2}$ | $\begin{aligned} & 11 \text { to } 22 \\ & \mathrm{Kg} / \mathrm{cm}^{2} \end{aligned}$ | Up to 11 $\mathrm{Kg} / \mathrm{cm}^{2}$ | $\begin{aligned} & 11 \text { to } 22 \\ & \mathrm{Kg} / \mathrm{cm}^{2} \end{aligned}$ |
| $16^{\circ} \mathrm{C}$ to $38^{\circ} \mathrm{C}$ | 15 minutes | 6 hours | 30 minutes | 12 hours | 11/2 hours | 24 hours |
| $5^{\circ} \mathrm{C}$ to $16^{\circ} \mathrm{C}$ | 20 minutes | 12 hours | 45 minutes | 24 hours | 4 hours | 48 hours |
| $-18^{\circ} \mathrm{C}$ to $5^{\circ} \mathrm{C}$ | 30 minutes | 48 hours | 1 hour | 96 hours | 72 hours | 8 days |

## DO'S AND DON'TS

## DO'S

- For best results use pipes, fittings and solvent cements, all manufactured by Finolex.
- Installation should be completed as per instructions and recommended safe practices must be followed.
- Clean the pipe and fittings with a clean dry cloth to remove any dirt.
- Keep pipe and fittings in the original packaging until needed.
- In case any crack is found in the pipe, cut a minimum of 25 mm length beyond the edge of the crack.
- Cut the pipe as square or perpendicular as possible before making a joint.
- Ensure no sharp edges are in contact with the fittings surface while inserting the pipe.
- Ensure proper alignment of pipe and fittings to avoid stress on the joints.
- Ensure installation is done in such a way that there are no chances of air entrapment.
- Use only Teflon tape as a thread sealant.
- Always conduct hydraulic pressure testing after installation to detect any leaks and faults.
- Wait for the appropriate cure time before pressure testing. Fill lines slowly and allow air to escape from the system prior to pressure testing.
- Paint pipes exposed to sunlight with a water-based paint.
- Provide additional support to the brass side of ASTM/brass transition or other for keeping any heavy object to support the weight of the metal system.


## DON'TS

- Do not use metal hooks or nails to support/hold or put pressure on the pipes.
- Do not use straps and hangers with rough or sharp edges. Do not tighten the straps over the pipes.
- Never expose the pipe to an 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 use air or gases for pressure testing.
- Do not use any other petroleum or solvent-based sealant, adhesive, lubricant, or fire-stop material on ASTM pipes and fittings.
- Do not use ASTM pipes and fittings for pneumatic applications.
- Do not use the ASTM piping system to support any metallic components.
- Do not use ASTM solvent cement that exceeds its shelf life, has become discoloured or has gelled.


## CERTIFICATIONS AND APPROVALS

- ASTM pipes and fittings are manufactured as per ASTM D 1785 and ASTM D 2467.
- Heavy Pressure plumbing pipes are manufactured conforming to IS 4985 (Bureau of Indian Standards).
- Tested and approved by CIPET and SGS laboratory.
- Recommended by leading plumbing consultants pan India.


## INDIA'S LARGEST AND ONLY BACKWARD INTEGRATED PVC PIPES AND FITTINGS MANUFACTURER

Finolex Industries Limited
Registered Office:
Gat No. 399, Village Urse, Taluka Maval, District Pune-410 506. Maharashtra, India. Tel. No. : 02114-237251 | E-mail: investors@finolexind.com
CIN: L40108PN198PLC024153 | Website: www.finolexpipes.com

## Corporate Office:

D1/10, MIDC, Chinchwad, Pune - 411 019. Maharashtra. India. Tel. No. : 020-27408200 | Fax. No. : 020-27479000 E-mail: care@finolexpipes.com

Disclaimer:
Any specifications can change without prior notice. All information contained in this literature is given in good faith and believed to be accurate and reliable. The product images shown are for illustration purposes only and may not be an exact representation of the product. Owing to factors outside our knowledge and control, may affect the use or price of the product. No warranty is given or is to be implied with respect to such information, nor do we offer any warranty or immunity against intellectual property rights infringement. The selection of the product should be as per the requirements of the end user and the Company is not responsible for the same. Any information in this literature should not be construed as guarantee or suitability for a particular application. No responsibility or liability can be accepted for any claims and consequential and/or incidental damages, damages caused by accident, abuse, misuse, improper storage, handling or use etc. The product shall be installed, affixed and used under the supervision and guidance of a technical expert.

