Pressure & Non-Pressure Pipes are supplying in accordance with IS:4985 covering a complete range from 20 mm to 315 mm. They are available in pressure rating 2.5 kg/cm², 4 kg/cm², 6kg/cm² & 10kg/cm² as defined in IS: 4985. The pipes are provided with plain socket and suitable for solvent cement jointing.

Their main application is in agriculture for water supply, drip irrigation & sprinkler lines, etc. as well as for drinking water distribution. However, these can also be used in cable ducting, ventilation pipe lines & slurry lines, etc.

They are available in light grey colour with nominal length of 6 mtrs.

Dimensions (As per IS: 4985 - 2000)

(All dimensions are in mm)

| Nominal<br>Outside            | Mean         |       | Outside |                  | Wall Thickness         |     |               |     |               |       |                      |      |      |                       | Mean Socket<br>Internal |                       |                 |                               |
|-------------------------------|--------------|-------|---------|------------------|------------------------|-----|---------------|-----|---------------|-------|----------------------|------|------|-----------------------|-------------------------|-----------------------|-----------------|-------------------------------|
| Diameter<br>(Nominal<br>Size) | Out:<br>Dian | side  | Diam    | eter at<br>point | Clas<br>0.25<br>2.5 Kg | MPa | 0.40<br>4.0 K | MPa | 0.60<br>6.0 K | MPa   | Cla<br>0.80<br>8.0 K |      | 1,00 | ss 5<br>M²a<br>(g/cm² | 1.25                    | ss 6<br>MPa<br>Kg/om² | Diame<br>Main F | eter of<br>Point of<br>Length |
| -0000                         | Min          | Max   | Min     | Max              | Min                    | Max | Min           | Max | Min           | Max   | Min                  | Max  | Min  | Max                   | Min                     | Max                   | Min             | Max                           |
| 20                            | 20.0         | 20.3  | 19.5    | 20.5             | 740                    | 720 | -             | 747 | -             | 1/21/ | 2                    | -    | 1.1  | 1.5                   | 1.4                     | 1.8                   | 20.1            | 20.3                          |
| 25                            | 25.0         | 25.0  | 24.5    | 25.5             | 7961                   | 140 |               | -   | +             | (*)   | 1.2                  | 1.6  | 1.4  | 1.8                   | 1.7                     | 2.1                   | 25.1            | 25.3                          |
| 32                            | 32.0         | 32.3  | 31.5    | 32.5             | 587                    | 180 | 0 35          | 100 |               | i e j | 1.5                  | 1.9  | 1.8  | 2.2                   | 2.2                     | 2.7                   | 32.1            | 32.3                          |
| 40                            | 40.0         | 40.3  | 39.5    | 40.5             | 16                     |     |               | 18  | 1.4           | 1.8   | 1.8                  | 2.2  | 2.2  | 2.7                   | 2.8                     | 3.3                   | 40.1            | 40.3                          |
| 50                            | 50.0         | 50.3  | 49.4    | 50.6             | -                      | :40 | 100           | 141 | 1.7           | 2.1   | 2.3                  | 2.8  | 2.8  | 3.3                   | 3.4                     | 4.0                   | 50.1            | 50.3                          |
| 63                            | 63.0         | 63.3  | 62.2    | 63.8             | (*)                    | **  | 1.5           | 1.9 | 2.2           | 2.7   | 2.8                  | 3.3  | 3.5  | 4.1                   | 4.3                     | 5.0                   | 63.1            | 63.3                          |
| 75                            | 75.0         | 75.3  | 74.1    | 75.9             |                        | 20  | 1.8           | 2.2 | 2.6           | 3.1   | 3.4                  | 4.0  | 4.2  | 4,9                   | 5.1                     | 5.9                   | 75.1            | 75.3                          |
| 90                            | 90.0         | 90.3  | 88.9    | 91.1             | 1.3                    | 1.7 | 2.1           | 2.6 | 3.1           | 3.7   | 4.0                  | 4.6  | 5.0  | 5.7                   | 6.1                     | 7.1                   | 90.1            | 90.3                          |
| 110                           | 110.0        | 110.4 | 108.6   | 111.4            | 1.6                    | 2.0 | 2.5           | 3.0 | 3.7           | 4.3   | 4.9                  | 5.6  | 6.1  | 7.1                   | 7.5                     | 8.7                   | 110.1           | 110.4                         |
| 125                           | 125.0        | 125.4 | 123.5   | 126.5            | 1.8                    | 2.2 | 2.9           | 3.4 | 4.3           | 5.0   | 5.6                  | 6.4  | 6.9  | 8.0                   | 8.5                     | 9.8                   | 125.1           | 125.4                         |
| 140                           | 140.0        | 140.5 | 138.3   | 141.7            | 2.0                    | 2.4 | 3.2           | 3.8 | 4.8           | 5.5   | 6.3                  | 7.3  | 7.7  | 8.9                   | 9.5                     | 11.0                  | 140.2           | 140.5                         |
| 160                           | 160.0        | 160.5 | 158.0   | 162.0            | 2.3                    | 2.8 | 3.7           | 4.3 | 5.4           | 6.2   | 7.2                  | 3.3  | 8.8  | 10.2                  | 10.9                    | 12.6                  | 160.2           | 160.5                         |
| 180                           | 180.0        | 180.6 | 177.8   | 182.2            | 2.6                    | 3.1 | 4.2           | 4.9 | 6.1           | 7.1   | 8.0                  | 9.2  | 9.9  | 11.4                  | 12.2                    | 14.1                  | 180.2           | 180.5                         |
| 200                           | 200.0        | 200.6 | 197.6   | 202.4            | 2.9                    | 3.4 | 4.6           | 5.3 | 6.8           | 7.9   | 8.9                  | 10.3 | 11.0 | 12.7                  | 13.6                    | 15.7                  | 200.3           | 200.6                         |
| 225                           | 225.0        | 225.7 | 222.3   | 227.7            | 3.3                    | 3.9 | 5.2           | 6.0 | 7.6           | 8.8   | 10.0                 | 11.5 | 12.4 | 14.3                  | 15.3                    | 17.6                  | 225.4           | 225.7                         |
| 250                           | 250.0        | 250.8 | 247.0   | 253.0            | 3.6                    | 4.2 | 5,7           | 6.5 | 8.5           | 9.8   | 11.2                 | 12.9 | 13.8 | 15.9                  | 17.0                    | 19.6                  | 250.4           | 250.8                         |
| 280                           | 280.0        | 280.9 | 276.6   | 283.4            | 4.1                    | 4.8 | 6.4           | 7.4 | 9.5           | 11.0  | 12.5                 | 14.4 | 15.4 | 17.8                  | 19.0                    | 21.9                  | 280.4           | 280.9                         |
| 315                           | 315.0        | 316.0 | 311.2   | 318.8            | 4.6                    | 5.3 | 7.2           | 8.3 | 10.7          | 12.4  | 14.0                 | 16.1 | 17.3 | 19.9                  | 21.4                    | 24.7                  | 315.4           | 316.0                         |

## Properties of PVC

Water Absorption

| Mechanical                      |                              |
|---------------------------------|------------------------------|
| Tensile Strength                | : 415-525 kg/cm <sup>2</sup> |
| Compression Strength            | : 550-910 kg/cm²             |
| Flexural Strength               | : 680 - 1100 kg/cm²          |
| Izod Impact Strength            | : 4 - 5 kg-cm/cm2            |
| Shore Hardness                  | : D65 - 85                   |
| Thermal                         |                              |
| Coefficient of Linear Expansion | : 0.08 mm/M°C                |
| Vicat Softening Point           | : >78°C                      |
| Max. Operating Temperature      | : 60°C                       |
| Physical                        |                              |
| Specific Gravity                | 140-145                      |

## Hazen - William's Flow Co-efficient Comparison

: < 4mg/cm3

| Pipe Material    | PVC | A.C. | GI  | C.I. |  |
|------------------|-----|------|-----|------|--|
| Flow Coefficient | 150 | 130  | 110 | 100  |  |

## Standards, Quality Control & Testing

The Manufacturing and testing in done for Pipes - In accordance with IS: 4985 - 2000

All the above pipes, except Non-pressure pipes are tested for potable water supplies in accordance with their relevant standards and as per the test methods given in IS: 12235.

