

# Sclairpipe®

## Bimodal PE4710 Pipe for Oil and Gas Gathering



### TYPICAL APPLICATIONS

Bimodal PE4710 HDPE pipe for oil and gas gathering, multiphase fluids, and non-potable oilfield water.

### MANUFACTURING STANDARD

*ASTM F2619 - Standard Specification for High-Density Polyethylene (PE) Line Pipe.*

*API 15LE - Specification for Polyethylene Line Pipe (PE).*

### QUALITY<sup>1</sup>:

Infra Pipes produces polyethylene pipes in the manufacturing facilities accredited to ISO 9001:2015.

### PIPE SIZES<sup>2</sup>:

IPS 4" (101.6mm) to 24" (609.6mm).

### TYPICAL MATERIAL PROPERTIES<sup>3</sup>:

Manufactured from a bimodal high-density polyethylene compound that meets or exceeds the minimum cell classification requirements of 445574C per ASTM D3350. The material is listed in the Plastics Pipe Institute (PPI) TR-4 with HDB ratings of 1,600 psi at 73°F (23°C) and 1,000 psi at 140°F (60°C) per ASTM D2837.

### JOINING METHODS:

Sclairpipe is typically joined by heat fusion. There are three types of conventional heat fusion joints currently used in the industry: Butt, Sadle, and Socket Fusion. Additionally, electrofusion (EF) joining and various types of mechanical fittings can be used. The ASTM D260 practice describes procedures for making joints with polyethylene (PE) pipe and fittings by means of heat fusion joining.

### WEATHERABILITY:

Pipe is produced from the PE4710 compound designated as code C (black with 2% minimum carbon black) per ASTM D3350. It has been demonstrated that this amount of well-dispersed, very fine particle carbon black grade provides sufficient protection for continuous outdoor service for more than 50 years<sup>4</sup>

<sup>1</sup> All North American facilities are certified. The ISO certification for our Jacksonville facility is underway.

<sup>2</sup> Please contact Infra Pipes to confirm availability and for additional sizes and DR's not shown.

<sup>3</sup> Typical properties will vary within specification limits.

<sup>4</sup> Plastic Pipe Institute TR-18, Weatherability of Thermoplastic Piping Systems.

## IPS SIZE AND DIMENSION DATA

| IPS Size         | OD avg. (in)         | DR7 335 psi         |                       |             | DR9 250 psi         |                       |             |
|------------------|----------------------|---------------------|-----------------------|-------------|---------------------|-----------------------|-------------|
|                  |                      | Min Wall (in)       | ID avg. (in)          | Wgt. lbs/ft | Min Wall (in)       | ID avg. (in)          | Wgt. lbs/ft |
| 4"<br>(101.6mm)  | 4.5<br>(114.3mm)     | 0.643<br>(16.332mm) | 3.137<br>(76.68mm)    | 3.401       | 0.5<br>(12.7mm)     | 3.440<br>(87.376mm)   | 2.75        |
| 6"<br>(152.4mm)  | 6.625<br>(168.275mm) | 0.946<br>(24.028mm) | 1.619<br>(117.323mm)  | 7.369       | 0.736<br>(18.694mm) | 5.065<br>(128.651mm)  | 5.958       |
| 8"<br>(203.2mm)  | 8.625<br>(219.075mm) | 1.232<br>(31.293mm) | 6.013<br>(152.73mm)   | 12.492      | 0.958<br>(24.333mm) | 6.594<br>(167.488mm)  | 10.099      |
| 10"<br>(254mm)   | 10.75<br>(273.05mm)  | 1.536<br>(39.014mm) | 7.494<br>(190.348mm)  | 19.408      | 1.194<br>(30.328mm) | 8.219<br>(208.763mm)  | 15.686      |
| 12"<br>(304.8mm) | 12.75<br>(323.85mm)  | 1.821<br>(46.253mm) | 8.889<br>(225.781mm)  | 27.297      | 1.417<br>(35.992mm) | 9.746<br>(247.548mm)  | 22.079      |
| 14"<br>(355.6mm) | 14<br>(355.6mm)      | 2 (50.8mm)          | 9.76<br>(247.904mm)   | 32.915      | 1.556<br>(39.522mm) | 10.701<br>(271.805mm) | 26.624      |
| 16"<br>(406.4mm) | 16<br>(406.4mm)      | 2.286<br>(58.064mm) | 11.154<br>(283.312mm) | 42.993      | 1.778<br>(45.161mm) | 12.231<br>(310.667mm) | 34.764      |
| 18"<br>(457.2mm) | 18<br>(457.2mm)      | 2.571<br>(65.303mm) | 12.549<br>(318.745mm) | 54.407      | 2 (50.8mm)          | 13.76<br>(349.504mm)  | 43.998      |
| 20"<br>(508mm)   | 20<br>(508mm)        | 2.857<br>(72.568mm) | 13.943<br>(354.152mm) | 67.172      | 2.222<br>(56.439mm) | 15.289<br>(388.341mm) | 54.317      |
| 22"<br>(558.8mm) | 22<br>(558.8mm)      | 3.143<br>(79.832mm) | 13.337<br>(338.76mm)  | 81.282      | 2.444<br>(62.078mm) | 16.819<br>(427.203mm) | 65.711      |
| 24"<br>(609.6mm) | 24<br>(609.6mm)      | 3.429<br>(87.097mm) | 16.731<br>(424.967mm) | 96.735      | 2.667<br>(67.742mm) | 18.346<br>(465.988mm) | 78.226      |

Pipe dimensions comply with ASTM F2619 and API 15LE. Pressure ratings are for water-based application at 73°F (23°C). Ratings will vary for other fluids and temperatures. Please contact your Infra Pipes representative to confirm availability, for sizes and DRs not shown. Weights are calculated by the methodology established in the PPI's TR-7. Technical information contained herein is furnished without charge or obligation and is given and accepted at the recipient's sole risk. Infra Pipes assumes no responsibility for the use of information presented here and disclaims all liability in regards to such use.

## IPS SIZE AND DIMENSION DATA

|                  |                      | DR11 200 psi        |                       |             | DR13.5 160 psi      |                       |             |
|------------------|----------------------|---------------------|-----------------------|-------------|---------------------|-----------------------|-------------|
| IPS Size         | OD avg. (in)         | Min Wall (in)       | ID avg. (in)          | Wgt. lbs/ft | Min Wall (in)       | ID avg. (in)          | Wgt. lbs/ft |
| 4"<br>(101.6mm)  | 4.5<br>(114.3mm)     | 0.409<br>(10.389mm) | 3.633<br>(92.278mm)   | 2.304       | 0.333<br>(8.458mm)  | 3.794<br>(96.368mm)   | 1.913       |
| 6"<br>(152.4mm)  | 6.625<br>(168.275mm) | 0.602<br>(15.291mm) | 5.349<br>(135.865mm)  | 4.992       | 0.491<br>(12.471mm) | 5.584<br>(141.834mm)  | 4.153       |
| 8"<br>(203.2mm)  | 8.625<br>(219.075mm) | 0.784<br>(19.914mm) | 6.963<br>(176.86mm)   | 8.465       | 0.639<br>(16.231mm) | 7.27<br>(184.658mm)   | 7.037       |
| 10"<br>(254mm)   | 10.75<br>(273.05mm)  | 0.977<br>(24.816mm) | 8.769<br>(220.447mm)  | 13.147      | 0.796<br>(20.218mm) | 9.062<br>(230.175mm)  | 10.927      |
| 12"<br>(304.8mm) | 12.75<br>(323.85mm)  | 1.159<br>(29.439mm) | 10.293<br>(261.442mm) | 18.498      | 0.944<br>(23.978mm) | 10.749<br>(273.025mm) | 15.363      |
| 14"<br>(355.6mm) | 14<br>(355.6mm)      | 1.273<br>(31.42mm)  | 11.301<br>(287.045mm) | 22.311      | 1.037<br>(26.34mm)  | 11.802<br>(299.771mm) | 18.53       |
| 16"<br>(406.4mm) | 16<br>(406.4mm)      | 1.455<br>(36.957mm) | 12.915<br>(328.041mm) | 29.145      | 1.185<br>(30.099mm) | 13.488<br>(342.595mm) | 24.202      |
| 18"<br>(457.2mm) | 18<br>(457.2mm)      | 1.636<br>(41.554mm) | 14.532<br>(369.113mm) | 36.862      | 1.333<br>(33.858mm) | 15.174<br>(385.42mm)  | 30.63       |
| 20"<br>(508mm)   | 20<br>(508mm)        | 1.818<br>(46.177mm) | 16.146<br>(410.108mm) | 45.515      | 1.482<br>(37.643mm) | 16.858<br>(428.193mm) | 37.837      |
| 22"<br>(558.8mm) | 22<br>(558.8mm)      | 2 (50.8mm)          | 17.76<br>(451.104mm)  | 55.08       | 1.63<br>(41.402mm)  | 18.544<br>(471.018mm) | 45.781      |
| 24"<br>(609.6mm) | 24<br>(609.6mm)      | 2.182<br>(55.423mm) | 19.374<br>(492.1mm)   | 65.557      | 1.778<br>(45.161mm) | 20.231<br>(513.867mm) | 54.467      |

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## IPS SIZE AND DIMENSION DATA

| IPS Size         | OD avg. (in)         | DR17 125 psi        |                       |             |
|------------------|----------------------|---------------------|-----------------------|-------------|
|                  |                      | Min Wall (in)       | ID avg. (in)          | Wgt. lbs/ft |
| 4"<br>(101.6mm)  | 4.5<br>(114.3mm)     | 0.265<br>(6.731mm)  | 3.938<br>(100.025mm)  | 1.549       |
| 6"<br>(152.4mm)  | 6.625<br>(168.275mm) | 0.390<br>(9.906mm)  | 5.798<br>(147.269mm)  | 3.357       |
| 8"<br>(203.2mm)  | 8.625<br>(219.075mm) | 0.507<br>(12.878mm) | 7.55<br>(191.77mm)    | 5.681       |
| 10"<br>(254mm)   | 10.75<br>(273.05mm)  | 0.632<br>(16.053mm) | 9.41<br>(239.014mm)   | 8.826       |
| 12"<br>(304.8mm) | 12.75<br>(323.85mm)  | 0.75<br>(19.05mm)   | 11.16<br>(283.464mm)  | 12.421      |
| 14"<br>(355.6mm) | 14<br>(355.6mm)      | 0.824<br>(20.93mm)  | 12.253<br>(311.226mm) | 14.985      |
| 16"<br>(406.4mm) | 16<br>(406.4mm)      | 0.941<br>(23.901mm) | 14.005<br>(355.727mm) | 19.558      |
| 18"<br>(457.2mm) | 18<br>(457.2mm)      | 1.059<br>(26.899mm) | 15.755<br>(400.177mm) | 24.759      |
| 20"<br>(508mm)   | 20<br>(508mm)        | 1.176<br>(29.87mm)  | 17.507<br>(444.678mm) | 30.55       |
| 22"<br>(558.8mm) | 22<br>(558.8mm)      | 1.294<br>(32.868mm) | 19.257<br>(489.128mm) | 36.975      |
| 24"<br>(609.6mm) | 24<br>(609.6mm)      | 1.412<br>(35.865mm) | 21.007<br>(533.578mm) | 44.012      |

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