

**► PE 3408/4710 IPS – GEOTHERMAL PIPE**

4/07

**High Performance PE 4710 Resin made to PE 3408 pipe standard  
Iron Pipe Size HDPE  
Black**

*Designed for Geothermal Heat Exchangers*

**ASTM D 3035**

| PIPE SIZE | O.D. ACTUAL |                 | DR 9<br>PC 200 | DR 11<br>PC 160 | DR 13.5<br>PC 128 | DR 17<br>PC 100 |
|-----------|-------------|-----------------|----------------|-----------------|-------------------|-----------------|
|           |             | MIN WALL        | .117           | .095            | .078              |                 |
| ¾"        | 1.050       | Weight per 100' | 15.00          | 13.00           | 11.00             |                 |
|           |             | MIN WALL        | .146           | .120            | .097              |                 |
| 1"        | 1.315       | Weight per 100' | 24.00          | 20.00           | 17.00             |                 |
|           |             | MIN WALL        | .184           | .151            | .123              |                 |
| 1-1/4"    | 1.660       | Weight per 100' | 37.00          | 32.00           | 27.00             |                 |
|           |             | MIN WALL        | .211           | .173            | .141              |                 |
| 1-1/2"    | 1.900       | Weight per 100' | 49.00          | 41.00           | 34.00             |                 |
|           |             | MIN WALL        | .264           | .216            | .176              |                 |
| 2"        | 2.375       | Weight per 100' | 77.00          | 64.00           | 53.00             |                 |
|           |             | MIN WALL        | .389           | .318            | .259              | .206            |
| 3"        | 3.500       | Weight per ft   | 1.66           | 1.39            | 1.16              | .93             |
|           |             | List per ft     | \$3.87         | \$3.24          | \$2.68            | \$2.16          |
|           |             | MIN WALL        | .500           | .409            | .333              | .265            |
| 4"        | 4.500       | Weight per ft   | 2.75           | 2.30            | 1.91              | 1.55            |
|           |             | MIN WALL        | .736           | .602            | .491              | .390            |
| 6"        | 6.625       | Weight per ft   | 5.95           | 4.99            | 4.15              | 3.35            |
|           |             | MIN WALL        | .958           | .784            | .639              | .507            |
| 8"        | 8.625       | Weight per ft   | 10.09          | 8.46            | 7.03              | 5.68            |
|           |             | MIN WALL        | 1.194          | .977            | .796              | .632            |
| 10"       | 10.750      | Weight per ft   | 15.68          | 13.14           | 10.92             | 8.82            |
|           |             | MIN WALL        | 1.417          | 1.159           | .944              | .750            |
| 12"       | 12.750      | Weight per ft   | 22.07          | 18.49           | 15.35             | 12.41           |

Weight Calculations are based on PPI TR7  
Available in straight lengths, coils or mileage reel  
Prices subject to change without notice

# Charter Plastics

Polyethylene. Pipe. Partners.



## ► PE 3408/4710 IPS - *GEOTHERMAL PIPE*

**High Performance PE 4710 Resin made to a PE 3408 Pipe Standard - Black**

### **SPECIFICATIONS:**

PE 3408/4710 Resin listed in PPI TR4  
1600 psi Hydrostatic Design Basis  
800 psi Hydrostatic Design Stress  
PE 3408/4710 utilizes a .50 design factor  
3/4" – 12" pipe: ASTM D3035

Cell Classification per ASTM D3350 = 445474C

### **Charter Geo Loops:**

Charter Geo Loops come as a single coil. Each loop is comprised of a supply and return pipe made to your specified length, run parallel, with a Charter U-Bend (180° fitting) factory fused to one end. The other end of the pipe is sealed and the entire coil is pressurized with air.

Charter Geo Loops are available in 3/4", 1" and 1-1/4" IPS pipe sizes.

### **Pressure Ratings:**

All pressure ratings are a maximum PSI @ 73.4°F.  
If temperatures exceed 80°F, contact Charter Plastics for a working pressure de-rating.

### **Joining:**

Charter Plastics IPS pipe is based on outside diameter. Heat fusion is the preferred method for joining this pipe. All personnel conducting fusions should be experienced and follow guidelines published by the pipe manufacturer or by PPI in TR 33. It may also be joined with OD Mechanical fittings designed for pipe made to D 3035 Standards. A stiffener should be inserted when using OD Compression type fittings on pipe  $\leq 2"$ .

Never use any lubricant on the pipe. Do not expose the pipe to direct flame.

### **Installing:**

Charter Geo Loops are designed to be used in vertical well applications as well as horizontal installations. All pipe installed down wells should be grouted with bentonite. Horizontally run pipe must be buried below the frost line and each pipe should be fully surrounded and supported by proper embedment material like sand or gravel. Do not lay pipe directly on top of pipe without proper embedment between each layer.

Refer to PPI's "Handbook of Polyethylene Pipe", the IGSHPA Installation Manual and follow as local, state or federal guidelines.

This pipe is not designed for in house use or for hot water applications.

### **Safe Handling:**

To safely handle and store polyethylene pipe, refer to PPI's "Material Handling Guide".

### **Testing:**

All pipe should be hydrostatically tested after installation. Pneumatic testing is not recommended.

