

# Sclairpipe® PE 4710

## Resin Properties

Infra Pipe's High-Density Polyethylene (HDPE) PE4710 pipe is manufactured from pressure-rated polyethylene compounds that meet or exceed ASTM D3350 requirements and cell classification PE445574C.

Sclairpipe solid wall pipe is produced from HDPE bimodal materials, designed specifically for the extrusion of premium-quality piping products and meeting the requirements of NSF-61, FM, and BNQ.

The PE4710 bimodal materials have a minimum PENT value of 2000 hours. The materials are listed in the Plastic Pipe Institute's (PPI) TR-4. Typical PE4710 properties are listed within Table 1.0.

TYPICAL PROPERTIES <sup>1</sup>				
		English Units	SI Units	Test Method
<b>Density</b>	Natural	0.9485-0.949 g/cm <sup>3</sup>	0.9485-0.949 g/cm <sup>3</sup>	ASTM D1505
	Black	0.959 g/cm <sup>3</sup>	0.959 g/cm <sup>3</sup>	ASTM D4883
<b>High Load Melt Index<sup>2</sup></b>		5.5-8.5 g/10 min	5.5-8.5 g/10 min	ASTM D1238
<b>Tensile Strength</b>	Yield	> 3500 psi	> 24.1 MPa	ASTM D638
	Break	> 5100 psi	> 35.1 Mpa	ASTM D638
<b>Elongation</b>	Break	> 500%	> 500%	ASTM D638
<b>Flexural Modulus</b>		146,000 psi	1,006 MPa	ASTM D790
<b>Brittleness Temperature</b>		< -103°F	< -75°C	ASTM D746
<b>Hydrostatic Design Basis</b>	73°F (23°C)	1600 psi	11.0 MPa	ASTM D2837
	140°F (60°C)	1000 psi	6.9 MPa	ASTM D2837
				ASTM D2837
<b>Minimum Required Strength</b>			10 MPa	ISO 12162
<b>Notch Tensile (PENT)</b>		> 2000 hrs	> 2000 hrs	ASTM F1473

<sup>1</sup>Typical properties will vary within specification limits

<sup>2</sup>190°C (374°F)/21,600g

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**Table 1.0** – Typical Properties of Infra Pipes PE4710 materials

### Design and Installation

For design and installation guidelines of PE pipe, refer to the latest edition of the PPI Handbook, *PE Piping Systems Field Manual for Municipal Water Applications M&I*, and ASTM D2774 *Standard Practice for Underground Installation of Thermoplastic Pressure Piping*. The Handbook and Field Manual are available at [www.plasticpipe.org](http://www.plasticpipe.org), and the ASTM D2774 is available at [www.astm.org](http://www.astm.org).

### IPS/DIPS/ISO Pipe Sizes

For standard pipe and DR sizes and pressure ratings, please refer to Sclairpipe® Size and Dimension document in submittals.