



Uponor Infra Sclairpipe High Density Polyethylene FM approved pipe is listed by FM Approvals for underground fire services water mains in accordance with FM Class Number 1613.

Sclairpipe FM approved pipe is produced from HDPE bimodal materials¹ designed specifically for extrusion of premium quality piping products and meeting the requirements of NSF-61.

The PE4710 bimodal materials conform to ASTM D3350 with the cell classification of 445584C with a minimum PENT value of 2000 hours. The materials are listed in Plastic Pipe Institute's TR-4.

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

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Figure 1 – Typical Properties of Uponor Infra PE4710 materials

For design and installation guidelines of PE pipe refer to the latest edition of the Plastic Pipe Institute 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, and the ASTM D2774 is available at www.astm.org .

¹ FM Approved pipe made with PE3608 material is available on request.

² Typical properties will vary within specification limits

³ 190°C/21,600g

Sclairpipe FM approved pipe is available in IPS and DIPS sizes and produced in PC150 (150 psi, 1035 kPa), PC200 (200 psi, 1380 kPa) and PC267 (267 psi, 1840 kPa). FM pipe will be marked to indicate compliance with other ASTM or AWWA standards. Discuss which 'other' standards may apply with your Uponor Customer Service Representative.

IPS Pipe - Class 150, 200 and 267					
NPS	Avg OD (in)	FM Class	Avg ID (in)	Min Wall (in)	Avg Weight (lbs/ft)
4	4.5	150	3.63	0.409	2.30
		200	3.44	0.500	2.75
		267	3.14	0.643	3.40
6	6.625	150	5.35	0.602	4.99
		200	5.06	0.736	5.96
		267	4.62	0.946	7.37
8	8.625	150	6.96	0.784	8.47
		200	6.59	0.958	10.10
		267	6.01	1.232	12.49
10	10.75	150	8.68	0.977	13.15
		200	8.22	1.194	15.69
		267	7.49	1.536	19.41
12	12.75	150	10.29	1.159	18.50
		200	9.75	1.417	22.08
		267	8.89	1.821	27.30
14	14	150	11.3	1.273	22.31
		200	10.70	1.556	26.62
		267	9.76	2.000	32.92
16	16	150	12.92	1.455	29.13
		200	12.23	1.778	34.76
		267	11.15	2.286	42.99
18	18	150	14.53	1.636	36.87
		200	13.76	2.000	44.00
		267	12.55	2.571	54.41
20	20	150	16.15	1.818	45.52
		200	15.29	2.222	54.32
		267	13.94	2.857	67.17
22	22	150	17.76	2.000	55.08
		200	16.82	2.444	65.72
		267	15.34	3.143	81.28
24	24	150	19.37	2.182	65.55
		200	18.35	2.667	78.22
		267	16.73	3.429	96.73
26	26	150	20.99	2.364	76.93
		200	19.88	2.889	91.80
		267	-	-	-
28	28	150	22.60	2.545	89.22
		200	21.40	3.111	106.46
		267	-	-	-

DIPS Pipe - Class 150, 200 and 267					
NPS	Avg OD (in)	FM Class	Avg ID (in)	Min Wall (in)	Avg Weight (lbs/ft)
4	4.80	150	3.87	0.436	2.62
		200	3.67	0.533	3.13
		267	3.35	0.686	3.87
6	6.90	150	5.57	0.627	5.42
		200	5.27	0.767	6.67
		267	4.81	0.986	8.00
8	9.05	150	7.31	0.823	9.32
		200	6.92	1.006	11.12
		267	6.31	1.293	13.75
10	11.10	150	8.96	1.009	14.02
		200	8.49	1.233	16.73
		267	7.74	1.586	20.69
12	13.20	150	10.66	1.200	19.83
		200	10.09	1.467	23.66
		267	9.20	1.886	29.26
14	15.30	150	12.35	1.391	26.64
		200	11.70	1.700	31.79
		267	10.67	2.186	39.31
16	17.40	150	14.05	1.582	34.45
		200	13.30	1.933	41.11
		267	12.13	2.486	50.84
18	19.50	150	15.74	1.773	43.27
		200	14.91	2.167	51.64
		267	13.59	2.786	63.86
20	21.60	150	17.44	1.964	53.10
		200	16.51	2.400	63.36
		267	15.06	3.086	78.35
24	25.80	150	20.83	2.345	75.75
		200	19.72	2.867	90.39
		267	17.99	3.686	111.78

Figure 2 – Dimension charts for Uponor Infra FM approved pipe

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