

PVC Pipe Schedule 40

For Pressurized Water Distribution

Standard Reference: ASTM D 1785, NSF/ANSI 61 & 14



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PVC Pipe

Schedule 40

Material

The **PVC Schedule 40** (Polyvinyl Chloride pipe) is manufactured in compliance with the standard ASTM D1784 and Cell Class 12454 in diameters from 1/2" to 12" and nominal laying lengths of 10 feet and 20 feet. It can be fabricated with bell end or plain end, designed to be coupled with PVC cement.

Advantages

- ⦿ Resistant to oxidation and corrosion
- ⦿ Non-toxic and odorless
- ⦿ Smooth interior walls with low frictional loss.
- ⦿ Lightweight, and easy to install using solvent weld
- ⦿ Long service time, with proper use
- ⦿ Maintenance free

Applications

Schedule 40 PVC pipes are typically used for transporting potable water. However, these pipes are also used for distributing other pressurized liquids provided they are chemically compatible with PVC. It is intended for places where liquid temperature does not exceed 140 °F (60 °C), such as residential buildings, high-rise buildings, offices, commercial buildings, hospitals, hotels and semi-industrial environments.

Features

Sizes: 1/2" – 12"

Pressure rating: 160 psi to 600 psi, varies with diameter and temperature

Maximum temperature: 140 °F (60 °C)

Standard Reference: ASTM D 1785 Standard Specification for Polyvinyl Chloride Pipe, Plastic Pipe, Schedules 40, 80, and 120

Color: White

Length: 20 feet | 10 feet

Type: Bell end pipe | Plain end



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Nominal Pipe Size inches	Outside Diameter inches (mm)	Wall Thickness inches (mm)	Pressure rating at 73°F (22.77°C) psi (kg/cm ²)
1/2"	0.840 (21.34)	0.109 (2.77)	600 (42.1)
3/4"	1.050 (26.67)	0.113 (2.87)	480 (33.7)
1"	1.315 (33.40)	0.133 (3.38)	450 (31.6)
1 1/4"	1.660 (42.16)	0.140 (3.56)	370 (26.0)
1 1/2"	1.900 (48.26)	0.145 (3.68)	330 (23.2)
2"	2.375 (60.32)	0.154 (3.91)	280 (19.7)
2 1/2"	2.875 (73.02)	0.203 (5.16)	300 (21.1)
3"	3.500 (88.90)	0.216 (5.49)	260 (18.3)
4"	4.500 (114.30)	0.237 (6.02)	220 (15.4)
6"	6.625 (168.28)	0.280 (7.11)	180 (12.6)
8"	8.625 (219.08)	0.322 (8.18)	160 (11.2)
10"	10.750(273.05)	0.365(9.27)	140 (9.8)
12"	12.750(323.85)	0.406(10.31)	130 (9.1)

Table 1. External diameters, wall thicknesses, and pressure rating for PVC Pipe Schedule 40.



Note: This PVC pipe used to transport potable water is evaluated in accordance with requirements indicated in the NSF 61 & NSF 14 standards.

Maximum Working Pressure Calculation

- ⦿ The pressure rating factors indicated in table 2 should be taken into account to adjust effective pressure at increased temperature. Multiply the pressure rating of the selected pipe at 73 °F, by the appropriate pressure rating factor to determine the maximum working pressure rating of the pipe at the chosen temperature
- ⦿ It is essential to follow the instructions for proper use, handling, storage and installation recommended by the manufacturer

Note: Please follow local plumbing or building codes for proper installation.

Warning: Do not use or test the products in this catalog with compressed air or other gasses.

Temperature °F (°C)	Pressure Rating Factor
73 (22.77)	1
80 (26.66)	0.88
90 (32.22)	0.75
100 (37.77)	0.62
110 (43.33)	0.5
120 (48.88)	0.4
130 (54.44)	0.3
140 (60)	0.22

Table 2. Pressure Rating Factor



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