



Technical Catalogue of PVC Pipe

UPVC & CPVC Series
ISO 1452 & 15877
ASTM D1785
ASTM F441

Shandong, China



Shandong Siffo Plastic Technology Co.,Ltd

Shandong.China

www.siffopipeline.com



SERIES AND SIZE OF UPVC PIPE FOR INDUSTRY

Introduction

Features

- 1.Exceptional chemical resistance – withstands corrosive substances like acids and alkalis for long-term industrial use.
- 2.Lightweight yet durable – easy to transport and install without compromising structural stability in harsh environments.
- 3.Low maintenance requirement – no need for painting or coating, saving time and cost over the service life.
- 4.Excellent flow performance – smooth inner walls minimize friction and prevent clogging of industrial fluids.

Specification

ISO1452-2 unit:mm

Nominal Outside Diameter Dn	Dimensions (mm)													
	S20 / SDR41		S16 / SDR33		S12.5 / SDR26		S10 / SDR21		S8 / SDR17		S6.3 / SDR13.6		S5 / SDR11	
	e _{min}	公差 Tolerance	e _{min}	公差 Tolerance	e _{min}	公差 Tolerance	e _{min}	公差 Tolerance	e _{min}	公差 Tolerance	e _{min}	公差 Tolerance	e _{min}	公差 Tolerance
16	-	-	-	-	-	-	-	-	-	-	-	-	2.0	+0.4
20	-	-	-	-	-	-	-	-	-	-	-	-	2.0	+0.4
25	-	-	-	-	-	-	-	-	-	-	2.0	+0.4	2.3	+0.5
32	-	-	-	-	-	-	-	-	2.0	+0.4	2.4	+0.5	2.9	+0.5
40	-	-	-	-	-	-	2.0	+0.4	2.4	+0.5	3.0	+0.5	3.7	+0.6
50	-	-	-	-	2.0	+0.4	2.4	+0.5	3.0	+0.5	3.7	+0.6	4.6	+0.7
63	-	-	2.0	+0.4	2.5	+0.5	3.0	+0.5	3.8	+0.6	4.7	+0.7	5.8	+0.8
75	-	-	2.3	+0.5	2.9	+0.5	3.6	+0.6	4.5	+0.7	5.6	+0.8	6.8	+0.9
90	-	-	2.8	+0.5	3.5	+0.6	4.3	+0.7	5.4	+0.8	6.7	+0.9	8.2	+1.1
110	-	-	3.4	+0.6	4.2	+0.7	5.3	+0.8	6.6	+0.9	8.1	+1.1	10.0	+1.2
125	-	-	3.9	+0.6	4.8	+0.7	6.0	+0.8	7.4	+1.0	9.2	+1.2	11.4	+1.4
140	-	-	4.3	+0.7	5.4	+0.8	6.7	+0.9	8.3	+1.1	10.3	+1.3	12.7	+1.5
160	4.0	+0.6	4.9	+0.7	6.2	+0.9	7.7	+1.0	9.5	+1.2	11.8	+1.4	14.6	+1.7
180	4.4	+0.7	5.5	+0.8	6.9	+0.9	8.6	+1.1	10.7	+1.3	13.3	+1.6	16.4	+1.9
200	4.9	+0.7	6.2	+0.9	7.7	+1.0	9.6	+1.2	11.9	+1.4	14.7	+1.7	18.2	+2.1
225	5.5	+0.8	6.9	+0.9	8.6	+1.1	10.8	+1.3	13.4	+1.6	16.6	+1.9	-	-
250	6.2	+0.9	7.7	+1.0	9.6	+1.2	11.9	+1.4	14.8	+1.7	18.4	+2.1	-	-
280	6.9	+0.9	8.6	+1.1	10.7	+1.3	13.4	+1.6	16.6	+1.9	20.6	+2.3	-	-
315	7.7	+1.0	9.7	+1.2	12.1	+1.5	15.0	+1.7	18.7	+2.1	23.2	+2.6	-	-
355	8.7	+1.1	10.9	+1.3	13.6	+1.6	16.9	+1.9	21.1	+2.4	26.1	+2.9	-	-
400	9.8	+1.2	12.3	+1.5	15.3	+1.8	19.1	+2.2	23.7	+2.6	29.4	+3.2	-	-
450	11.0	+1.3	13.8	+1.6	17.2	+2.0	21.5	+2.4	26.7	+3.0	33.1	+3.6	-	-
500	12.3	+1.5	15.3	+1.8	19.1	+2.2	23.9	+2.6	29.7	+3.2	36.8	+3.9	-	-
560	13.7	+1.6	17.2	+2.0	21.4	+2.4	26.7	+2.9	-	-	-	-	-	-
630	15.4	+1.8	19.3	+2.2	24.1	+2.7	30.0	+3.2	-	-	-	-	-	-
710	17.4	+2.0	21.8	+2.4	27.2	+3.0	-	-	-	-	-	-	-	-
800	19.6	+2.2	24.5	+2.7	30.6	+3.3	-	-	-	-	-	-	-	-

Note: 1.The minimum wall thinkness is no less than 2.0mm for security.
2.The size should conform to GB/T10798 unless otherwise specified.

(ASTM D1785)UPVC PIPE

SCH40

Specification

ASTM D1785 unit:mm

尺寸 Size(″)	壁厚 Wall thickness(mm)	外径 Outer diameter	公差 Tolerance of wall thickness
1/2″	2.77	21.34	0~+0.51
3/4″	2.87	26.67	0~+0.51
1″	3.38	33.4	0~+0.51
1-1/4″	3.56	42.16	0~+0.51
1-1/2″	3.68	48.26	0~+0.51
2″	3.91	60.32	0~+0.51
2-1/2″	5.16	73.02	0~+0.61
3″	5.49	88.9	0~+0.66
4″	6.02	114.3	0~+0.71
5″	6.55	141.3	0~+0.79
6″	7.11	168.28	0~+0.79
8″	8.18	219.08	0~+0.86
10″	9.27	273.05	0~+1.12
12″	10.31	323.85	0~+1.24
14″	11.10	355.6	0~+1.35
16″	12.70	406.4	0~+1.52
18″	14.27	457.2	0~+1.7
20″	15.06	508	0~+1.8
24″	17.45	609.6	0~+2.08

SCH80

产品参数

ASTM D1785 unit:mm

尺寸 Size(″)	壁厚 Wall thickness(mm)	外径 Outer diameter	公差 Tolerance of wall thickness
1/2″	3.73	21.34	0~+0.51
3/4″	3.91	26.67	0~+0.51
1″	4.55	33.4	0~+0.53
1-1/4″	4.85	42.16	0~+0.58
1-1/2″	5.08	48.26	0~+0.61
2″	5.54	60.32	0~+0.66
2-1/2″	7.01	73.02	0~+0.84
3″	7.62	88.9	0~+0.91
4″	8.56	114.3	0~+1.02
5″	9.52	141.3	0~+1.14
6″	10.97	168.28	0~+1.32
8″	12.70	219.08	0~+1.52
10″	15.06	273.05	0~+1.80
12″	17.45	323.85	0~+2.08
14″	19.05	355.6	0~+2.29
16″	21.41	406.4	0~+2.57
18″	23.8	457.2	0~+2.84
20″	26.19	508	0~+3.15
24″	30.94	609.6	0~+3.71

SERIES AND SIZE OF CPVC PIPE FOR INDUSTRY

Introduction

Features

- 1. **High temperature resistance** – handles hot corrosive fluids up to 93℃ for continuous industrial operations.
- 2. **Superior chemical stability** – resists strong acids, alkalis and solvents better than standard plastic pipes.
- 3. **Low thermal expansion** – maintains dimensional stability in fluctuating temperature industrial environments.
- 4. **Cost-effective durability** – reduces replacement frequency with long service life in harsh chemical settings.

Specification

ISO15877-2 unit:mm

Nominal Outside Diameter Dn	Dimensions (mm)							
	S10 / SDR21		S6.3 / SDR13.6		S5 / SDR11		S4 / SDR9	
	e _{min}	公差 Tolerance	e _{min}	公差 Tolerance	e _{min}	公差 Tolerance	e _{min}	公差 Tolerance
20	2.0(0.96)*	0-+0.4	2.0(1.5)*	0-+0.4	2.0(1.9)*	0-+0.4	2.3	0-+0.5
25	2.0(1.2)*	0-+0.4	2.0(1.9)*	0-+0.4	2.3	0-+0.5	2.8	0-+0.5
32	2.0(1.6)*	0-+0.4	2.4	0-+0.5	2.9	0-+0.5	3.6	0-+0.6
40	2.0(1.9)*	0-+0.4	3.0	0-+0.5	3.7	0-+0.6	4.5	0-+0.7
50	2.4	0-+0.5	3.7	0-+0.6	4.6	0-+0.7	5.6	0-+0.8
63	3.0	0-+0.5	4.7	0-+0.7	5.8	0-+0.8	7.1	0-+1.0
75	3.6	0-+0.6	5.6	0-+0.8	6.8	0-+0.9	8.4	0-+1.1
90	4.3	0-+0.7	6.7	0-+0.9	8.2	0-+1.1	10.1	0-+1.3
110	5.3	0-+0.8	8.1	0-+1.1	10.0	0-+1.2	12.3	0-+1.5
125	6.0	0-+0.8	9.2	0-+1.2	11.4	0-+1.4	14.0	0-+1.6
140	6.7	0-+0.9	10.3	0-+1.3	12.7	0-+1.5	15.7	0-+1.8
160	7.7	0-+1.0	11.8	0-+1.4	14.6	0-+1.7	17.9	0-+2.0
180	8.6	0-+1.1	13.3	0-+1.6	-			
200	9.6	0-+1.2	14.7	0-+1.7	-		-	
225	10.8	0-+1.3	16.6	0-+1.9	-		-	
250	11.9	0-+1.4	18.4	0-+2.1	-		-	
280	13.4	0-+1.6	20.6	0-+2.3	-		-	
315	15.0	0-+1.7	23.2	0-+2.6	-		-	
355	16.9	0-+1.9	26.1	0-+2.9	-		-	
400	19.1	0-+2.2	29.4	0-+3.2	-		-	

Note: Considering the stiffness requirements, the wall thickness of pipes marked with "*" is increased to 2.0mm.
The wall thickness in parentheses should be used when calculating the hydraulic test pressure.

(ASTM F441)CPVC PIPE

SCH40

Specification

ASTM F441 unit:mm

尺寸 Size(")	尺寸 Wall thickness(mm)	外径 Outer diameter	尺寸 Tolerance of wall thickness
1/2"	2.77	21.34	0~+0.51
3/4"	2.87	26.67	0~+0.51
1"	3.38	33.4	0~+0.51
1-1/4"	3.56	42.16	0~+0.51
1-1/2"	3.68	48.26	0~+0.51
2"	3.91	60.32	0~+0.51
2-1/2"	5.16	73.02	0~+0.61
3"	5.49	88.9	0~+0.66
4"	6.02	114.3	0~+0.71
5"	6.55	141.3	0~+0.79
6"	7.11	168.28	0~+0.79
8"	8.18	219.08	0~+0.86
10"	9.27	273.05	0~+1.12
12"	10.31	323.85	0~+1.24
14"	11.10	355.6	0~+1.35
16"	12.70	406.4	0~+1.52

SCH80

Specification

ASTM F441 unit:mm

尺寸 Size(")	尺寸 Wall thickness(mm)	外径 Outer diameter	尺寸 Tolerance of wall thickness
1/2"	3.73	21.34	0~+0.51
3/4"	3.91	26.67	0~+0.51
1"	4.55	33.4	0~+0.53
1-1/4"	4.85	42.16	0~+0.58
1-1/2"	5.08	48.26	0~+0.61
2"	5.54	60.32	0~+0.66
2-1/2"	7.01	73.02	0~+0.84
3"	7.62	88.9	0~+0.91
4"	8.56	114.3	0~+1.02
5"	9.52	141.3	0~+1.14
6"	10.97	168.28	0~+1.32
8"	12.70	219.08	0~+1.52
10"	15.06	273.05	0~+1.80
12"	17.45	323.85	0~+2.08
14"	19.05	355.6	0~+2.29
16"	21.41	406.4	0~+2.57

Table of Product Standards-UPVC/CPVC Pipes and Fittings

种类 Type	执行标准 Product Standards
UPVC 给水管件（国标）(DIN)UPVC Fittings For Water Supply	GB/T 10002.2-2003 BS EN ISO 1452
UPVC 化工管件（国标）(DIN)UPVC Fittings For Industry	GB/T 4219.2-2015
UPVC 牙口式美标管件 (ASTM)Threaded Type UPVC Fittings	ASTM D2464
UPVC 承插式美标管件 (ASTM)Socket Type UPVC Fittings	ASTM D2467
CPVC 化工管件（国标）(DIN)CPVC Fittings For Industry	GB/T 18998.3-2003
CPVC 牙口式美标管件 (ASTM)Threaded Type CPVC Fittings	ASTM F437
CPVC 承插式美标管件 (ASTM)Socket Type CPVC Fittings	ASTM F439
UPVC 给水管材（国标）(DIN) UPVC Pipes For Water Supply	GB/T 10002.1-2006
UPVC 化工管材（国标）(DIN) UPVC Pipes For Industry	GB/T 4219.1-2008
UPVC 美标 管材 (ASTM) UPVC Pipes	ASTM D 1785
CPVC 给水管材（国标）(DIN) CPVC Pipes For Water Supply	GB/T 18993.2-2003
CPVC 化工管材（国标）(DIN) CPVC Pipes For Industry	GB/T 18998.2-2003
CPVC 美标管材 (ASTM) CPVC Pipes	ASTM F441

Standards of UPVC Material Testin

指标名称 Index Name	单位 Unit	指标 Index	试验方法 Test method
密度 Density	kg/m³	1350-1460	按 GB/T 1033-1986 规定 A 法测定 Method A of GB 1033
维卡软化温度 Vicat Softening Temperature	°C	管材 ≥80 管件 ≥74	GB/T 8802-2001
静液压测试 Hydraulic Test		不破裂，不渗水 No Breakage, no leakage	GB/T 6111-2003
纵向回缩率 Longitudinal Reversion	%	≤5	GB/T 6671-2001
二氯甲烷浸泡 Dichloromethane Soak		试样表面无损坏 No damage on surface of sampe	GB/T 13526-2007

Standards of CPVC Testing Material

指标名称 Index Name	单位 Unit	指标 Index	试验方法 Test method
密度 Density	kg/m³	1450-1650	GB/T 1033-1986 方法 A Method A of GB/T 1033-1986
维卡软化温度（管材） Vicat Softening Temperature(Pipes)	°C	≥110	GB/T 8802-2001
维卡软化温度（管件） Vicat Softening Temperature(Fittings)	°C	≥103	GB/T 8802-2001
纵向回缩率 Longitudinal Reversion	%	≤5	GB/T6671-2001 方法 B Method B of GB/T6671-2001
氯含量（质量百分比） Chlorine Concerntration (Mass Percent)	%	≥60	GB/T 7139-2002
静液压试验 Hydrostatic Test	--	无脱层，无破碎 No leafing,no break	ISO 1167:1996
静液压状态下热稳定试验 Hydrostatic Reheat Test	--	无脱层，无破碎 No leafing,no break	ISO 1167
落锤冲击试验 Drop Impact Test	Cal/g/°C	TIR≤10%	GB/T 14152
烘箱试验 Oven Test	MPa	无分层，无开裂 No lamination,no crack	GB/T 8803
弹性模量 * Modulus of Elasticity	MPa	≥2660	ASTM D638
拉伸强度 * Tensile Strength	KJ/m²	≥56	ASTM D638
冲击强度 * Impact Strength	m/m°C	≥16	ASTM D256
线膨胀系数 * Coefficient of Linear Expansion	Cal/g/°C	3.4x10 ⁻⁵	--
热传导率 * Thermal Conductivity	Cal/g/°C	0.14	ASTM C177
比热 * Specific Heat	Ω/cm	0.14	--
体电阻 * Bulk Resistance	AC,KV/mm	≥1015	--
介电强度 * Dielectric Strength	--	13	--
阻燃性 * Flame Retardant	--	自熄 Self-extinguish	UL-94