

ASAHI 

# Chemical Pipe

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*Chemical*

PRODUCT MODEL CODE LIST

Type	Field	Material	Standard/Wall Thickness	Standard	Type	Size	Length
<b>P</b>	<b>N</b>	<b>K</b>	<b>PP</b>	<b>J</b>	<b>N</b>	<b>***</b>	<b>04</b>
⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮
P Pipe	N Standard	K Chemical	PP Straight Pipe VP	J JIS	N Standard	016 16mm   300 300mm	04 4m

Straight Pipe (Chemical Pipe)

PRODUCT MODEL CODE

P N K PP J N Size 04



**Excellent chemical-resistance**

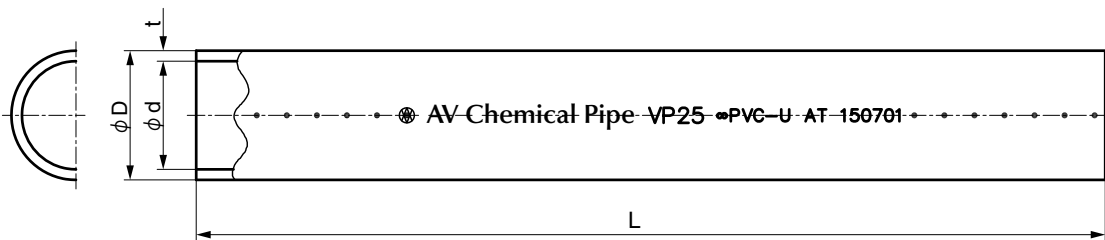
Higher chemical-resistance compared to general unplasticized polyvinyl chloride pipes and excellent penetration resistance specially against hydrochloric acid, fluorine, etc.

**Long-term durability**

Excellent long-term durability with high creep property.

**High pressure-resistant capability**

Excellent safety and reliability with high pressure-resistant strength.



■ Dimensions Table

(Unit: mm)

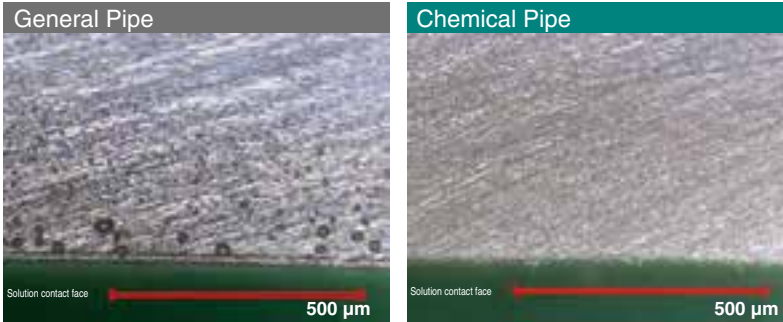
Size	D (Outer Diameter)			t (Thickness)		d (Approximate Inner Diameter)	L (Overall Length)	Weight per 1m (Reference) (kg/m)
	Basic Dimension	Max/Min. Outer Dimensional Tolerance	Average Outer Dimensional Tolerance	Min Dimension	Tolerance			
16	22.0	±0.2	±0.2	2.7	+0.6	16	4000 ±10	0.256
20	26.0	±0.2	±0.2	2.7	+0.6	20	4000 ±10	0.310
25	32.0	±0.2	±0.2	3.1	+0.8	25	4000 ±10	0.448
30	38.0	±0.3	±0.2	3.1	+0.8	31	4000 ±10	0.542
40	48.0	±0.3	±0.2	3.6	+0.8	40	4000 ±10	0.791
50	60.0	±0.4	±0.2	4.1	+0.8	51	4000 ±10	1.122
65	76.0	±0.5	±0.3	4.1	+0.8	67	4000 ±10	1.445
75	89.0	±0.5	±0.3	5.5	+0.8	77	4000 ±10	2.202
100	114.0	±0.6	±0.4	6.6	+1.0	100	4000 ±10	3.409
125	140.0	±0.8	±0.5	7.0	+1.0	125	4000 ±10	4.464
150	165.0	±1.0	±0.5	8.9	+1.4	146	4000 ±10	6.701
200	216.0	±1.3	±0.7	10.3	+1.4	194	4000 ±10	10.129
250	267.0	±1.6	±0.9	12.7	+1.8	240	4000 ±10	15.481
300	318.0	±1.9	±1.0	15.1	+2.2	286	4000 ±10	21.962

Notes: Various fittings to connect to chemical pipes are TS fittings.

## Chemical-resistance

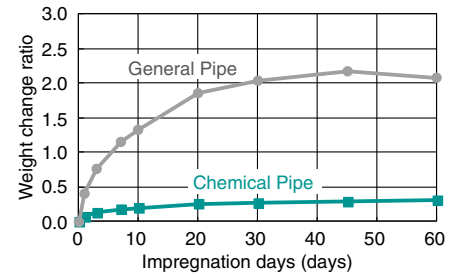
### <Sectional Picture of VP50 Impregnated Piece>

- Hydrochloric acid 35%, 50°C, 12 days of impregnation

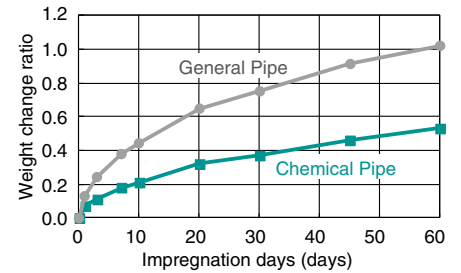


Effusion of hydrochloric acid is seen with the general pipe but completely free from it with the chemical pipe.

- Weight change (Hydrochloric acid 35%, 50°C)



- Weight change (Nitric acid 65%, 50°C)



## Basic Property

Item	Type	Chemical Pipe	General Pipe
Tensile strength (MPa)		58.7	57.5
Extension Ratio (%)		182	186
Izod Impact Value (kJ/m <sup>2</sup> )		7.5	6.5
Vicat Softening Temperature (°C)		84.0	83.7

Notes: Various fittings to connect to chemical pipes are conventional TS fittings, but they have the equivalent chemical-resistance to chemical pipes.

## Short-Term Burst Pressure Test

(Unit: MPa)

Size	Type	Chemical Pipe	General Pipe
VP50		10.0	9.2
VP100		8.4	6.8
VP200		6.8	5.4

## Creep Property

### <Creep Test Results>

- Circumferential stress 12.5MPa, 60°C

