

# Polyurethane Tube

Straight Tube for General Pneumatic Piping

## Safety instructions for this product

Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

## Model Designation (Example)

|                  |                    |                    |                   |                  |
|------------------|--------------------|--------------------|-------------------|------------------|
| <b>UB</b><br>(1) | <b>0640</b><br>(2) | <b>- 20</b><br>(3) | <b>- C</b><br>(4) | <b>-C</b><br>(5) |
|------------------|--------------------|--------------------|-------------------|------------------|

### (1) Polyurethane Tube

### (2) Tube dia. (O.D.×I.D.)

| Code | mm size (mm) |      |      |            |      |            |      |      |           |
|------|--------------|------|------|------------|------|------------|------|------|-----------|
|      | 01810        | 0212 | 0320 | 0425(5/32) | 0640 | 0850(5/16) | 1065 | 1280 | 1611(5/8) |
| O.D. | ø1.8         | ø2   | ø3   | ø4         | ø6   | ø8         | ø10  | ø12  | ø16       |
| I.D. | ø1           | ø1.2 | ø2   | ø2.5       | ø4   | ø5         | ø6.5 | ø8   | ø11       |

| Code | inch size (inch) |             |       |       |             |       |       |            |
|------|------------------|-------------|-------|-------|-------------|-------|-------|------------|
|      | 1/8              | 0425 (5/32) | 3/16  | 1/4   | 0850 (5/16) | 3/8   | 1/2   | 1611 (5/8) |
| O.D. | ø1/8             | ø5/32       | ø3/16 | ø1/4  | ø5/16       | ø3/8  | ø1/2  | ø5/8       |
| I.D. | ø0.08            | ø0.10       | ø0.12 | ø0.16 | ø0.20       | ø0.24 | ø0.33 | ø0.43      |

\*1. Consult us when using non-PISCO brand tube fittings for our Polyurethane tube with tube O.D. 1.8 mm. It may cause fluid leakage or tube escape.

\*2. The values in ( ) in the row Code represent the tube O.D. in inches.

### (3) Tube length

| Code       | 20 | 50 | 100 |
|------------|----|----|-----|
| Length (m) | 20 | 50 | 100 |

\*1. UB01810, UB0212, UB1611, and UB5/8 are available only in 20 m length.

\*2. 50 m length is available only in black color with tube dia. of mm size.

### (4) Tube color (○: Available)

| Code       | B     | R   | O      | YB    | Y      | G     | BU   | CB         | C           | W           |
|------------|-------|-----|--------|-------|--------|-------|------|------------|-------------|-------------|
| Tube color | Black | Red | Orange | Ocher | Yellow | Green | Blue | Clear blue | Transparent | Milky white |
| mm size    | ○     | ○   | ○      | ○     | ○      | ○     | ○    | ○          | ○           | ○           |
| inch size  | ○     | ○   | ○      |       | ○      | ○     | ○    |            | ○           |             |

\*Standard colors of tube size UB0212 do not include ocher.

### (5) Packaging spec. (Optional)

| Code      | No code            | -C                 |
|-----------|--------------------|--------------------|
| Packaging | Standard packaging | Clean-room package |

\*Clean-room packaging is only available for Transparent with outer diameters of dia. 4 to 12 mm and total tube length of 20 m.

## Characteristics

### Best suitable for compact piping.

Featuring excellent flexibility and can be used with small bending radius.

### A wide variety of tube colors.

Pipings can be identified by color or can be completed in the same colors as the devices.

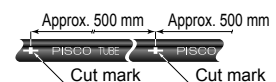
### Ultra-small diameter 1.8 mm and 2 mm are available.

### NEW New color dia. 2 mm tubes are now available.

Six new colors, including red, orange, yellow, green, blue, and milky white, are now available.

### The cut marks at 500 mm interval are printed on the tube as a guide.

\*The marks are just as a guide and the accuracy is not guaranteed.



### Tubings longer than the packaged length can be requested as make-to-order production.

Tube diameter/Length List

| Model code | Length (m) |
|------------|------------|
| UB0320     | 300        |
| UB0425     | 500        |
| UB0640     | 500        |
| UB0850     | 500        |
| UB1065     | 250        |
| UB1280     | 200        |
| UB1611     | 100        |

\*1. The minimum order quantity of tubings longer than the packaged length is 500 m or more per order.

\*2. Contact us for lengths not listed.

\*3. Contact us for the reel winding.

\*4. Contact us for tubes longer than the packaged length in inch size.

### Clean-room package (Optional)

### Suitable for clean environment.

Cleaned and packaged in cleanroom ISO class 6 equivalent. Packaged in antistatic packaging material that prevents dust from sticking.

## Specifications (○: Available)

|                       |                                      | mm size (mm)                                                   |        |                  |                   |        |                   |        |        |                  | inch size (inch) |           |          |          |          |
|-----------------------|--------------------------------------|----------------------------------------------------------------|--------|------------------|-------------------|--------|-------------------|--------|--------|------------------|------------------|-----------|----------|----------|----------|
| Model code            |                                      | UB01810                                                        | UB0212 | UB0320           | UB0425<br>(5/32") | UB0640 | UB0850<br>(5/16") | UB1065 | UB1280 | UB1611<br>(5/8") | UB1/8            | UB3/16    | UB1/4    | UB3/8    | UB1/2    |
| Size                  | O.D.×I.D.                            | 1.8×1                                                          | 2×1.2  | 3×2              | 4×2.5             | 6×4    | 8×5               | 10×6.5 | 12×8   | 16×11            | 1/8×0.08         | 3/16×0.12 | 1/4×0.16 | 3/8×0.24 | 1/2×0.33 |
|                       | Tube length (m)                      | 20                                                             |        | 20 · 50(*) · 100 |                   |        |                   |        |        | 20               | 20 · 100         |           |          |          |          |
| Tube color: 10 colors | Black (B)                            | ○                                                              | ○      | ○                |                   |        |                   |        |        |                  | ○                |           |          |          |          |
|                       | Red (R)                              | ○                                                              | ○      | ○                |                   |        |                   |        |        |                  | ○                |           |          |          |          |
|                       | Orange (O)                           | ○                                                              | ○      | ○                |                   |        |                   |        |        |                  | ○                |           |          |          |          |
|                       | Ocher (YB)                           | ○                                                              | -      | ○                |                   |        |                   |        |        |                  | -                |           |          |          |          |
|                       | Yellow (Y)                           | ○                                                              | ○      | ○                |                   |        |                   |        |        |                  | ○                |           |          |          |          |
|                       | Green (G)                            | ○                                                              | ○      | ○                |                   |        |                   |        |        |                  | ○                |           |          |          |          |
|                       | Blue (BU)                            | ○                                                              | ○      | ○                |                   |        |                   |        |        |                  | ○                |           |          |          |          |
|                       | Clear blue (CB)                      | ○                                                              | ○      | ○                |                   |        |                   |        |        |                  | -                |           |          |          |          |
|                       | Transparent (C)                      | ○                                                              | ○      | ○                |                   |        |                   |        |        |                  | ○                |           |          |          |          |
|                       | Milky white (W)                      | ○                                                              | ○      | ○                |                   |        |                   |        |        |                  | -                |           |          |          |          |
| Specifications        | Fluid medium                         | Air, Water (Conditional <sup>*1</sup> )                        |        |                  |                   |        |                   |        |        |                  |                  |           |          |          |          |
|                       | Max. operating pressure (MPa)        | 1.0 (65% RH at 20°C <sup>*2</sup> )                            |        |                  |                   |        |                   |        |        |                  |                  |           |          |          |          |
|                       | Max. vacuum (kPa)                    | -100                                                           |        |                  |                   |        |                   |        |        |                  |                  |           |          |          |          |
|                       | Operating temp. range (°C)           | Air: -20 to 70 (No freezing)    Water: -15 to 60 (No freezing) |        |                  |                   |        |                   |        |        |                  |                  |           |          |          |          |
|                       | Min. bending radius (JIS) (mm)       | 4                                                              |        | 8                | 10                | 15     |                   | 20     | 30     | 60               | 8                | 15        |          | 20       | 30       |
|                       | Min. installation radius (Vice) (mm) | 6                                                              |        | 12               | 15                | 23     |                   | 30     | 45     | 90               | 12               | 23        |          | 30       | 45       |

## △ Warning

\*1. The following conditions must be observed when the fluid medium is water.

(1) Surge pressure must be controlled lower than max. operating pressure when using water as a fluid medium.

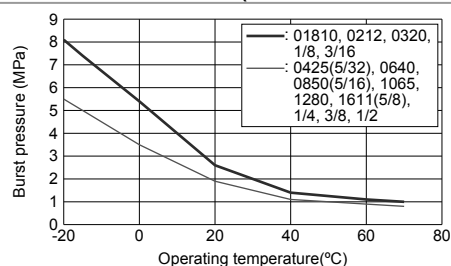
(2) General tap water in Japan, free from foreign substances or contamination, can be used. Carry out the evaluation under an actual operating condition for using other kind of water.

(3) Be sure to place Insert Ring (WR) into the tube edge when tube is inserted into push-in fittings and using water as a fluid medium. Except UB01810, 0212.

\*2. The value of max. operating pressure is measured at 20°C and 65% RH. For other temperatures, the Burst Pressure Curve should be used with a sufficient safety margin. In addition, if the tube is in a moving part, such as a swinging or bending part, the temperature may rise due to self-heating caused by intermolecular heat generation, which may cause the tube to break.

⊕Note\* 50 m Length is available only in Black.

## Burst Pressure Curve (Reference Value)



## Related product



## Tube End Marker (not for sale)

- ▶ Enables to mark the tube insertion dimension and prevent insufficient insertion.
- ▶ Can be used for PISCO Push-in fittings.

Contact us for more information about Tube End Markers.

RoHS2 (2011/65/EU+EU2015/863) compliant

| Tube type                      | Model code                                 |
|--------------------------------|--------------------------------------------|
| Polyurethane Tube<br><b>UB</b> | UB01810-20- <b>[4]</b>                     |
|                                | UB0212-20- <b>[4]</b>                      |
|                                | UB0320- <b>[3]</b> - <b>[4]</b>            |
|                                | UB0425- <b>[3]</b> - <b>[4]</b> <b>[5]</b> |
|                                | UB0640- <b>[3]</b> - <b>[4]</b> <b>[5]</b> |
|                                | UB0850- <b>[3]</b> - <b>[4]</b> <b>[5]</b> |
|                                | UB1065- <b>[3]</b> - <b>[4]</b> <b>[5]</b> |
|                                | UB1280- <b>[3]</b> - <b>[4]</b> <b>[5]</b> |
|                                | UB1611-20- <b>[4]</b>                      |
|                                | UB1/8- <b>[3]</b> - <b>[4]</b>             |
|                                | UB3/16- <b>[3]</b> - <b>[4]</b>            |
|                                | UB1/4- <b>[3]</b> - <b>[4]</b>             |
|                                | UB3/8- <b>[3]</b> - <b>[4]</b>             |
|                                | UB1/2- <b>[3]</b> - <b>[4]</b>             |

## Notes

- \*1. Tubes with desired length are available as make-to-order items. Contact us for the price.
- \*2. For **[3]** in model code, please select a code of tube length, for **[4]**, please select a tube color code.

## Package

## Packaging specifications

20 M lengths/bag: Applicable to all types

50 M lengths/bag: Only black color in mm size except UB01810, 0212 is available

100 M lengths/box: All types except UB01810, 0212, 1611.

## Option

**[5]** : -C ⇒ Clean-room package