

Polyurethane Tube - Ester Base

Characteristics

- This polyurethane tube has achieved 20% cost saving compared to conventional Polyurethane Tube (UB).
- Excelled in mechanical strength and oil resistance, this ester base polyurethane tube is best suitable for air piping in factories.
- The polyurethane tube, featuring excellent flexibility, helps compact piping requiring small bending radius.
- The useful cut marks at 500mm interval are printed on the tube.
- Feet rolls are available in certain colors as standard.

Specifications

Model	UBT1/8	UBT5/32	UBT3/16	UBT1/4	UBT5/16	UBT3/8	UBT1/2	UBT0425	UBT0640	UBT0850	UBT1065	UBT1280
O.D.×I.D. (mm)	3.18×2	4×2.5	4.76×3	6.35×4.15	8×5	9.53×6	12.7×8.5	4×2.5	6×4	8×5	10×6.5	12×8
Tube length (m)	20 · 100						20 · 50 (*) · 100					
Black (B)	○		○		○					○		
Red (R)	○		—		○					○		
Orange (O)	○		—		○					○		
Yellow (Y)	○				○					○		
Green (G)	○				○					○		
Blue (Bu)	○		—		○					○		
Clear blue (CB)	○		○		○					○		
Transparent (C)	○		○		○					○		
Milk-white (W)	○		—		○					○		
Fluid medium	Air											
Max. operating pressure	116psi (0.8MPa) (65%RH at 20°C *)											
Max. vacuum	-29.5in. Hg (-100kPa)											
Operating temp. range	-5 ~ 140°F (-15 ~ 60°C) (no freezing)											
Min. bending Radius (JIS) (mm)	8	10	15	20	30	10	15	20	30			
Min. Mounting Radius (VCE) (mm)	12	15	23	30	45	15	23	30	45			

*1. 50M length is available only in black color with tube dia. metric sizes (not available with inch sizes)
 *2. The value of max. operating pressure at 20°C 65%RH. When Tubes are used in different conditions, consider a safety ratio of the pressure with an enough margin, referring to Burst Pressure Curve. When Tubes are frequently swung and bent, there is a possibility of generating heat between molecules, and damaging the products.



UBT Polyurethane Tube	Model	
	mm	inch
	UBT0425-[3]-[4]	UBT1/8-[3]-[4]
	UBT0640-[3]-[4]	UBT5/32-[3]-[4]
	UBT0850-[3]-[4]	UBT3/16-[3]-[4]
	UBT1065-[3]-[4]	UBT1/4-[3]-[4]
	UBT1280-[3]-[4]	UBT5/16-[3]-[4]
		UBT3/8-[3]-[4]
		UBT1/2-[3]-[4]

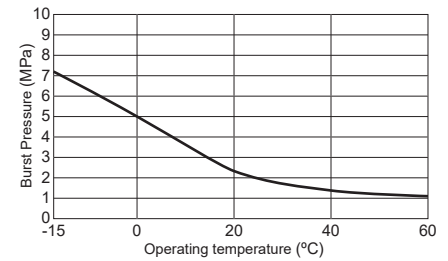


Cautions
 *Tube can be sold at desirable length as build-to-order production. Please make inquiry about the availability of feet length roll.



Package specifications
 20M lengths /bag: Applicable to all types
 50M lengths/bag: Only black color in MM size is available

Burst Pressure Curve (Reference Value)



Model Designation (Example)



- (1) Name of tube
 (2) Tube dia. (O.D./I.D.)

	inch size						
Code	1/8	5/32	3/16	1/4	5/16	3/8	1/2
O.D.	ø1/8in.	ø5/32in.	ø3/16in.	ø1/4in.	ø5/16in.	ø3/8in.	ø1/2in.
I.D.	ø0.08in.	ø0.10in.	ø0.12in.	ø0.16in.	ø0.20in.	ø0.24in.	ø0.33in.
	mm size						
Code	0425	0640	0850	1065	1280		
O.D.	ø4mm	ø6mm	ø8mm	ø10mm	ø12mm		
I.D.	ø2.5mm	ø4mm	ø5mm	ø6.5mm	ø8mm		

- (3) Tube length

Code	20	50	100
Length	20m 65.6ft.	50m 164ft.	100m 328ft.

* Inch dia. tubings come in either 20m or 100m, or in feet rolls of either 100' or 500', are available in certain colors as standard.
 * 100m or 500' length comes on a reel while 20m and 100' is in a plastic bag.
 * The standard UBT 50m comes in black only for metric sizes only.

- (4) Tube color

Code	B	R	O	Y	G	Bu	CB	C	W
Color	Black	Red	Orange	Yellow	Green	Blue	Clear blue	Transparent	Milk-white
mm size	○	○	○	○	○	○	○	○	○
inch 1/8, 5/32, 1/4, 5/16, 3/8, 1/2	○	○	○	○	○	○	○	○	○
size 3/16	○	—	—	—	—	—	○	○	—

* The colors marked with ○ are available as standard.

Print your company name on tubing



- Ester Base Polyurethane Tubing only

PISCO is capable of producing polyurethane tubing with your specified company name or logo printed on the tubing. Following are the requirements for special-printed polyurethane tubing (Ester base tubing only).

Tube O.D. Size	Minimum Quantity
5/32", 4mm, 1/4", 6mm	5000 meters or 16500 feet total (1000 meters or 3300 feet per color)
5/16", 8mm	3000 meters or 9900 feet total (1000 meters or 3300 feet per color)
3/8", 10mm	2400 meters or 7900 feet total (800 meters or 2700 feet per color)
1/2", 12mm	1200 meters or 4000 feet total (600 meters or 2000 feet per color)
5/8", 16mm	800 meters or 2700 feet total (400 meters or 1350 feet per color)

❖ Contact us for quotation.

Polyurethane Tube - Ether Base

Characteristics

- The ether base polyurethane tube, featuring excellent flexibility, helps compact piping requiring small bending radius.
- Tubes come in a variety of colors so that pipings can be identified by color or can be completed in the same colors as the devices.
- The useful cut marks at 500mm interval are printed on the tube.
- The long tube, as described in the table below, can be requested as build-to-order production.

■ Table of long tube

Model		Reel (m/roll)	Small bundle (m/roll)	Large bundle *2 (m/roll)
mm	inch			
UB0320	UB1/8	300	300	-
UB0425	UB5/32, UB3/16	300	300	-
UB0640	UB1/4	300	300	-
UB0850	UB5/16	200	200	500
UB1065	UB3/8	150	150	300
UB1280	UB1/2	100	100	200
UB1611	UB5/8	50	50	100

*1. The minimum ordering quantity of long tube is 500m or more.

*2. The large bundle tube roll is delivered by film wrapping on the pallet, and its freight cost will be charged separately.

ø1.8mm type

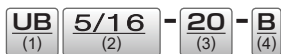
- Featuring small bending radius of 4mm, this ø1.8mm tube realizes compact piping.
- The tube comes in 10 colors.

Specifications

Model	UB01810	UB0320	UB0425	UB0640	UB0850	UB1065	UB1280	UB1611	UB1/8	UB5/32	UB3/16	UB1/4	UB5/16	UB3/8	UB1/2	UB5/8
O.D.×I.D. (mm)	1.8×1	3×2	4×2.5	6×4	8×5	10×6.5	12×8	16×11	3.18×2	4×2.5	4.76×3	6.35×4.15	8×5	9.53×6	12.7×8.5	16×11
Tube length (m)	20	20 · 50 (**), 100						20	20 · 100						20	
Tube color (○ : available)																
Black (B)	○															
Red (R)	○															
Orange (O)	○															
Ocher (YB)	○															
Yellow (Y)	○															
Green (G)	○															
Blue (Bu)	○															
Clear blue (CB)	○															
Transparent (C)	○															
Milk-white (W)	○															
Fluid medium	Air, water (*1, *2, *3)															
Max. operating pressure	145psi (1.0MPa) (65%RH at 20°C *5)															
Max. vacuum	-29.5in. Hg (-100kPa)															
Operating temp. range	4 ~ 158°F (-20 ~ 70°C) (no freezing)															
Min. bending Radius (JIS) (mm)	4	8	10	15	20	30	60	8	10	15	15	20	30	60	30	60
Min. Mounting Radius (VCE) (mm)	6	12	15	23	30	45	90	12	15	23	30	45	90	120	161	200

- *1. Surge pressure must be controlled lower than max. operating pressure when using water as a fluid medium.
- *2. Be sure to place Insert Ring into the tube edge when Polyurethane Tube is installed into the Push-In Fittings with water as a fluid medium.
- *3. Tap water can be used. Consult with PISCO for using other kind of water.
- *4. 50M length is available only in black color with tube dia. of metric sizes.
- *5. The value of max. operating pressure at 20°C 65%RH. When Tubes are used in different conditions, consider a safety ratio of the pressure with an enough margin, referring to Burst Pressure Curve. When Tubes are frequently swung and bent, there is a possibility of generating heat between molecules, and damaging the products.

Model Designation (Example)



- (1) Name of tube
- (2) Tube dia. (O.D./I.D.)

Code	mm size							
	O.D.	ø1.8mm	ø3mm	ø4mm	ø6mm	ø8mm	ø10mm	ø12mm
I.D.	ø1mm	ø2mm	ø2.5mm	ø4mm	ø5mm	ø6.5mm	ø8mm	ø11mm
Code	inch size							
	O.D.	ø1/8in.	ø5/32in.	ø3/16in.	ø1/4in.	ø5/16in.	ø3/8in.	ø1/2in.
I.D.	ø0.08in.	ø0.10in.	ø0.12in.	ø0.16in.	ø0.20in.	ø0.24in.	ø0.33in.	ø0.43in.

(3) Tube length

Code	20	50	100
Length	20m 65.6ft.	50m 164ft.	100m 328ft.

- * UB01810, UB1611 and UB5/8 coming in 20m only.
- * The standard UB 50m comes in black only.

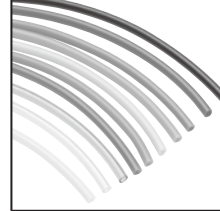
(4) Tube color

Code	B	R	O	YB	Y	G	Bu	CB	C	W
Color	Black	Red	Orange	Ocher	Yellow	Green	Blue	Clear blue	Transparent	Milk-white
mm size	○	○	○	○	○	○	○	○	○	○
inch size	○	○	○	○	○	○	○	○	○	○
size	1/8, 3/16, 1/4, 3/8, 1/2	○	○	○	○	○	○	○	○	○

- * The colors marked with ○ are available as standard.



UB
Polyurethane Tube



Model	
mm	inch
UB01810-20-(4)	UB ^{1/8} - ³ - ⁴
UB0320-(3)-(4)	UB ^{5/32} - ³ - ⁴
UB0425-(3)-(4)	UB ^{3/16} - ³ - ⁴
UB0640-(3)-(4)	UB ^{1/4} - ³ - ⁴
UB0850-(3)-(4)	UB ^{5/16} - ³ - ⁴
UB1065-(3)-(4)	UB ^{3/8} - ³ - ⁴
UB1280-(3)-(4)	UB ^{1/2} - ³ - ⁴
UB1611-20-(4)	UB ^{5/8} - ²⁰ - ⁴



Cautions

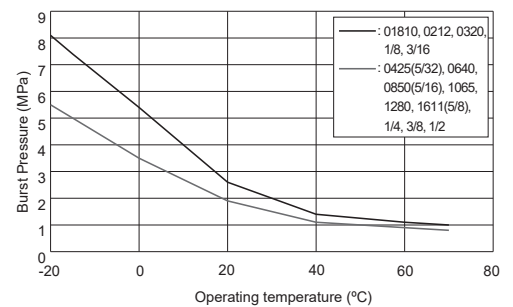
1. Tube can be sold at desirable length as build-to-order production. Please make inquiry about pricing to our sales offices.
2. For (3), please select a tube length.
3. For (4), please select a tube color.



Package specifications

- 20M lengths /bag: Applicable to all types
- 50M lengths/bag: Only black color in MM size is available
- 100M lengths/ box: All types except UB01810, 1611 and 5/8

Burst Pressure Curve (Reference Value)



Soft Polyurethane Tube

Characteristics

- Soft Polyurethane Tube is best suitable for compact piping in narrow space with its flexible property.
- It is made of ether base polyurethane resin, making possible to use water as a fluid medium.
- 6 colors are available.
- The useful cut marks on every 500mm are printed.
- Multi-core Planner Tube made by Soft Polyurethane Tube is also available. (See page 74 for details.)

Specifications

Model	UC0425	UC0640	UC0850	UC1065	UC1280
Size					
O.D.×I.D. (mm)	4×2.5	6×4	8×5	10×6.5	12×8
Tube length (m)	20 · 100				
Tube color (○ : available)					
Clear black (CBL)	○				
Clear orange (CBL)	○				
Clear yellow (CY)	○				
Clear green (CG)	○				
Clear blue (CB)	○				
Transparent (C)	○				
Fluid medium	Air, water (*1, *2, *3)				
Max. operating pressure	87psi (0.6MPa) (65%RH at 20°C *4)				
Max. vacuum	-29.5in. Hg (-100kPa)				
Operating temp. range	-5 ~ 140°F (-15 ~ 60°C) (no freezing)				
Min. bending Radius (JIS) (mm)	9	13	18	18	27
Remarks	Use of Insert ring is recommended. Insert ring is necessary to conform to the pull-out strength defined by JIS B 8381-1, if it requires.)				

- *1. Surge pressure must be controlled lower than max. operating pressure when using water as a fluid medium.
 *2. Tap water can be used. Consult with PISCO for using other kind of water.
 *3. Be sure to place Insert Ring into the tube edge when Soft Polyurethane Tube is inserted into Push-In Fittings with water as a fluid medium.
 *4. The value of max. operating pressure is measured at 20°C at 65%RH. When Tubes are used in different conditions, consider a safety ratio of the pressure with an enough margin, referring to Burst Pressure Curve. When Tubes are frequently swung and bent, there is a possibility of generating heat between molecules, and damaging the products.

Model Designation (Example)



- (1) Soft Polyurethane Tube
 (2) Tube dia. (O.D./I.D.)

Code	mm size				
	0425	0640	0850	1065	1280
O.D.(mm)	ø4	ø6	ø8	ø10	ø12
I.D.(mm)	ø2.5	ø4	ø5	ø6.5	ø8

(3) Tube length

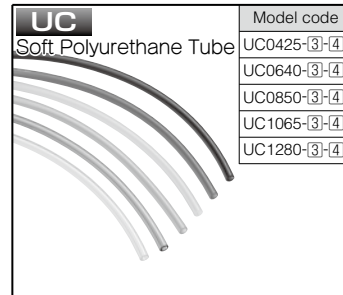
Code	20	100
Length	20m 65.6ft.	100m 328ft.

(4) Tube color

Code	CBL	CO	CY	CG	CB	C
Tube color	Clear black	Clear orange	Clear yellow	Clear green	Clear blue	Transparent



The products listed in this page are ECO-friendly products.
 * Please refer to page 4 for the details of ECO-friendly products.



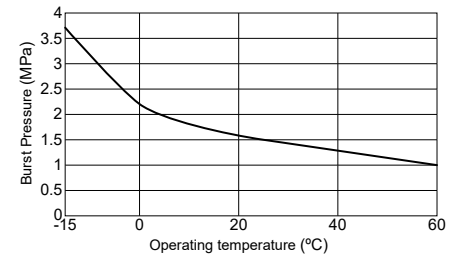
Caution

- * ^③ : Replaced with Tube length.
- * ^④ : Replaced with Tube color code.
- * Tubes with desired length are available as make-to-order items. Contact Pisco sales office or sales representative for details.



Package specifications
 20M lengths /bag: Applicable to all types
 100M lengths/ box: All types

Burst Pressure Curve (Reference Value)



Detailed Safety Instructions

Before using the PISCO products, be sure to read the "Safety Instructions", "Common Safety Instructions for Products in This Catalog" on page 13 to 16 and "Common Safety Instructions for Tubes" on page 66.

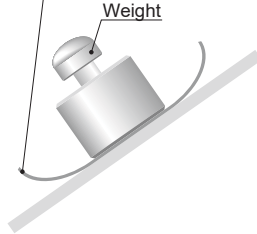
■ Tube for cable/hose protecting and guiding devices

Low-Friction Polyurethane Tube

Characteristics

- The polyurethane tube, featuring excellent flexibility, helps compact piping requiring small bending radius.
- Tubes come in a variety of colors so that pipings can be identified by color or can be completed in the same colors as the devices.
- The friction factor is one third (1/3) of PISCO Polyurethane Tube standard type.

Test:
Example: Tube material in Flat film type of tube material



- The useful cut marks at 500mm interval are printed on the tube.

Specifications

Model	UBS0425	UBS0640	UBS0850	UBS1065	UBS1280	
Size	O.D.×I.D. (mm)	4×2.5	6×4	8×5	10×6.5	12×8
	Tube length (m)	20 · 100				
Tube color	Black (B)	○: available				
	Yellow (Y)	○				
	Green (G)	○				
	Blue (Bu)	○				
	Milk-white (W)	○				
Fluid medium	Air					
Max. operating pressure	116psi (0.8MPa) (65%RH at 20°C *)					
Max. vacuum	-29.5in. Hg (-100kPa)					
Operating temp. range	-5 ~ 140°F (-15 ~ 60°C) (no freezing)					
Min. bending Radius (JIS) (mm)	10	15	20	30	30	
Min. Mounting Radius (VICE) (mm)	15	23	30	30	45	

*1. Max. operating pressure is the value at 65%RH at 20°C. When using on other temperatures, please take enough safety value judging from the burst pressure curve on the right. When the tube is applied to moving parts with vibration and bend, the temperature may rise due to self-heat generation by molecule heat generation and lead to the breakage of the tube.

Model Designation (Example)

UBS (1) 0640 (2) - 20 (3) - B (4)

- (1) Name of tube
(2) Tube dia. (O.D./I.D.)

Code	mm size				
	0425	0640	0850	1065	1280
O.D.	ø4mm	ø6mm	ø8mm	ø10mm	ø12mm
I.D.	ø2.5mm	ø4mm	ø5mm	ø6.5mm	ø8mm

- (3) Tube length

Code	20	100
Length	20m 65.6ft.	100m 328ft.

- (4) Tube color

Code	B	Y	G	Bu	W
Color	Black	Yellow	Green	Blue	Milk-white

RoHS The products listed in this page are ECO-friendly products.
* Please refer to page 4 for the details of ECO-friendly products.

Model
UBS0425- ⁽³⁾ - ⁽⁴⁾
UBS0640- ⁽³⁾ - ⁽⁴⁾
UBS0850- ⁽³⁾ - ⁽⁴⁾
UBS1065- ⁽³⁾ - ⁽⁴⁾
UBS1280- ⁽³⁾ - ⁽⁴⁾



Cautions

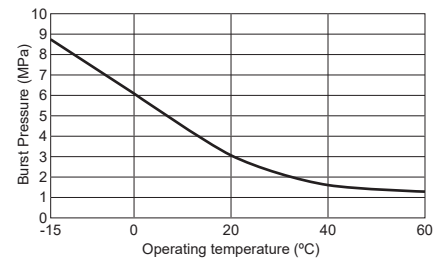
- *1. Tube can be sold at desirable length as build-to-order production. Please make inquiry about pricing to our sales offices.
- *2. As a special property of this Tube, the powder components (slipping agent) will appear on the surface (inside and outside) of the tube as time goes by. Please confirm the specification before use.
- *3. For ⁽³⁾, please select a tube length.
- *4. For ⁽⁴⁾, please select a tube color.



Package specifications

20M lengths /bag: Applicable to all types
100M lengths/ box: Applicable to all type

Burst Pressure Curve (Reference Value)



Vacuum Tube

Characteristics

- This ultra soft tube is suitable around actuators where tubes frequently move and small bending radius is required.
- The useful cut marks on every 500mm interval are printed.

Specifications

Model	UD0425	UD0640	UD0860	UD1075	UD1290
Size					
O.D.×I.D. (mm)	4×2.5	6×4	8×6	10×7.5	12×9
Tube length (m)	20 · 100				
Transparent (C)	○				
Fluid medium	Air				
Max. operating pressure	58psi (0.4MPa) (65%RH at 20°C *)		43.5psi (0.3MPa) (65%RH at 20°C *)		
Max. vacuum	-29.5in. Hg (-100kPa)				
Operating temp. range	-5 ~ 122°F (-15 ~ 50°C) (no freezing)				
Min. bending Radius (JIS) (mm)	8	12	27	34	38

*1. The value of max. operating pressure is measured at 20°C and 65%RH. When Tubes are used in different conditions, consider a safety ratio of the pressure with an enough margin, referring to Burst Pressure Curve. When Tubes are frequently swung and bent, there is a possibility of generating heat between molecules and damaging the products.

*2. Be sure to place Insert Ring into the tube edge when Vacuum Tube is inserted into Push-In Fittings. There is a possibility of escape of Tube without Insert Ring.

Model Designation (Example)



- (1) Vacuum Tube
 (2) Tube dia. (O.D./I.D.)

	mm size				
Code	0425	0640	0860	1075	1290
O.D.	ø4mm	ø6mm	ø8mm	ø10mm	ø12mm
I.D.	ø2.5mm	ø4mm	ø6mm	ø7.5mm	ø9mm

- (3) Tube length

Code	20	100
Length	20m 65.6ft.	100m 328ft.

- (4) Tube color

Code	C
Color	Transparent

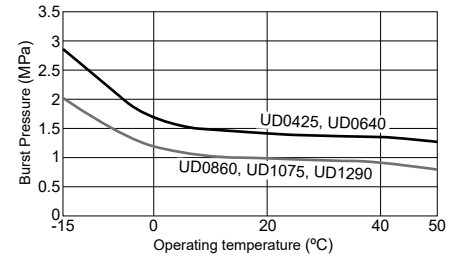
RoHS The products listed in this page are ECO-friendly products.
 * Please refer to page 4 for the details of ECO-friendly products.

UD Vacuum Tube	Model code
	UD0425- (3) -C
	UD0640- (3) -C
	UD0860- (3) -C
	UD1075- (3) -C
	UD1290- (3) -C

Caution
 * (3) : Replaced with Tube length.
 * Tubes with desired length are available as make-to-order items. Contact Pisco sales office or sales representative for details.

Package specifications
 20M lengths /bag: Applicable to all types
 100M lengths/ box: Applicable to all types

Burst Pressure Curve (Reference Value)



Detailed Safety Instructions

Before using the PISCO products, be sure to read the "Safety Instructions", "Common Safety Instructions for Products Listed in This Manual" on page 13 to 16 and "Common Safety Instructions for Tubes" on page 66.

Caution : 1. Load is not considered in the value of Minimum Installation Radius. Since Vacuum Tube is easily crushed during vacuum suction, an enough margin of Minimum Installation Radius needs to be applied. (Reference for Margin: Minimum Installation Radius x 1.3)