

General Catalog of Pneumatic/ Fluid Transport Tube, Tube Fitting and **CHEMIFIT®**



B-TU-10E



U2

For general air pressure

Features

- Well balanced between flexibility and pressure-resistant performance, and high workability. Most suitable for general air pressure piping usage.
- Either polyurethane resin is used to prevent degradation by water or mold under high temperature and high humidity.
- Coil processing and welding can be performed on request.

Product number table

● Millimeter size type (Group 4)

Type	Outer diameter × Inner diameter (mm)	Max. working pressure (MPa at 20°C)	Min. bending radius (mm)	Weight (g/m)	Standard color (color symbol)								
					Black	White	Yellow	Blue	Green	Red	Clear	Clear blue	
					BK	WH	YL	BU	GN	RE	CL	CBU	
U2-4-3×2	3×2	(Air) 0.8	10	5	●	—	—	—	—	—	—	—	—
U2-4-4×2.5	4×2.5		10	9	●	○	●	●	●	●	○	○	○
U2-4-6×4	6×4		15	19	●	○	●	●	●	●	○	○	○
U2-4-8×5	8×5	(Water) 0.6	23	35	●	○	●	●	●	●	○	○	○
U2-4-10×6.5	10×6.5		30	52	●	○	●	●	●	●	○	○	○
U2-4-12×8	12×8		35	72	●	○	●	●	●	●	○	○	○
U2-4-16×12	16×12		50	103	●	—	—	—	—	—	—	—	—

● Inch size type (Group 1)

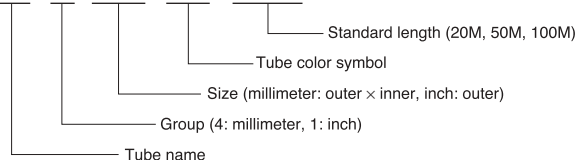
Type	Outer diameter × Inner diameter (mm)	Max. working pressure (MPa at 20°C)	Min. bending radius (mm)	Weight (g/m)	Standard color (color symbol)						
					Black	Yellow	Blue	Green	Red	Clear	
					BK	YL	BU	GN	RE	CL	
U2-1-3/16	4.76×3.48	(Air) 0.6	13	10	●	●	●	●	●	○	○
U2-1-1/4	6.35×4.57		20	18	●	●	●	●	●	○	○
U2-1-5/16	7.94×5.90		27	26	●	●	●	●	●	○	○
U2-1-3/8	9.53×6.99	(Water) 0.4	28	39	●	●	●	●	●	○	○
U2-1-1/2	12.70×9.56		35	65	●	●	●	●	●	○	○

Standard length

20M, 100M ☞ U2-4-16×12: 50M only

Product number example

U2 - 4 - 6×4 - BK - 100M



Operating fluid, working temperature range

Operating fluid	Working temperature range
Air	-40°C~+80°C
Water	0°C~+50°C

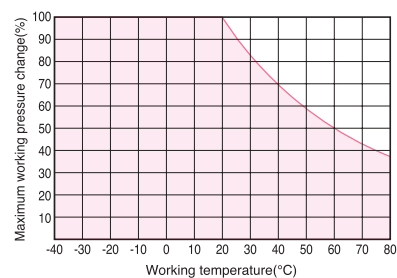
Negative pressure performance

-101.294kPa

Relation between the working temperature and the maximum working pressure

The maximum working pressure varies with the working temperature (environmental temperature). For use at an abnormal temperature, always check the maximum working pressure change in the graph below and keep the pressure within the indicated range.

⚠ Caution Using tubes at a pressure outside the range may cause accidents or damage, for which Nitta is not liable.



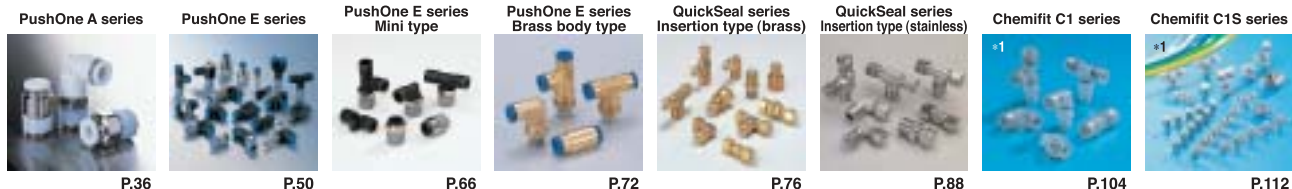
Handling instructions

⚠ Caution When water is used as the operating fluid, the tube material might degrade depending on the additive. Contact us for details.

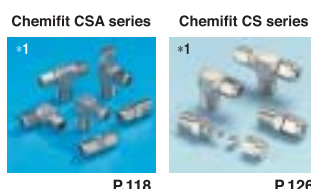
⚠ Caution When water is used as the operating fluid, keep the surge pressure under the maximum working pressure. Also, do not allow the water to freeze.

☞ See page 10 for common instructions for tube products.

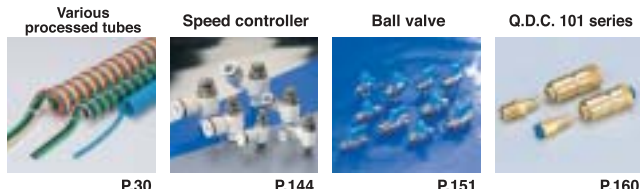
Applicable fittings



Applicable fittings



Allied products and product introduction



Reference

Chemical resistance specification tableP.207
Effective cross-sectional areaP.176
Negative-pressure performance listP.177

(*) Combinatory use of U2 tube and Chemifit series mixes general and clean type performances. When using them in a clean environment, pay attention to the clean level that could be lowered.

U1

For general air pressure (high pressure type)

Features

- Usable in higher air-pressure range than U2 tube
- Ether polyurethane resin is used to prevent degradation by water or mold under high temperature and high humidity.
- Coil processing and welding can be performed on request.



Product number table

● Millimeter size type (Group 4)

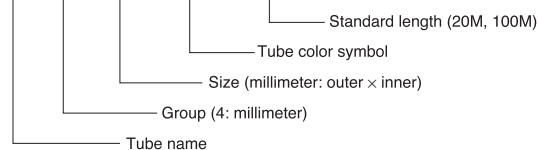
Type	Outer diameter × Inner diameter (mm)	Max. working pressure (MPa at 20°C)	Min. bending radius (mm)	Weight (g/m)	Standard color (color symbol)					
					Black	White	Yellow	Blue	Green	Red
					BK	WH	YL	BU	GN	RE
U1-4-4×2.5	4×2.5	(Air) 1.2	10	9	●	○	●	●	●	●
U1-4-6×4	6×4		15	19	●	○	●	●	●	●
U1-4-8×5	8×5		23	36	●	○	●	●	●	●
U1-4-10×6.5	10×6.5	(Water) 0.9	30	53	●	—	—	—	—	—
U1-4-12×8	12×8		35	73	●	—	—	—	—	—

Standard length

20M, 100M

Product number example

U1 - 4 - 6×4 - BK - 100M



Operating fluid, working temperature range

Operating fluid	Working temperature range
Air	-40°C~+80°C
Water	0°C~+50°C

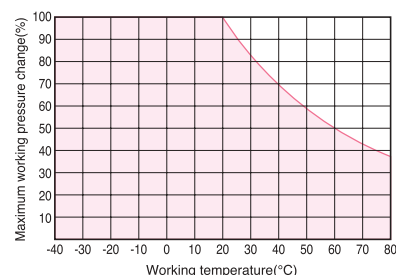
Negative pressure performance

-101.294kPa

Relation between the working temperature and the maximum working pressure

The maximum working pressure varies with the working temperature (environmental temperature). For use at an abnormal temperature, always check the maximum working pressure change in the graph below and keep the pressure within the indicated range.

⚠ Caution Using tubes at a pressure outside the range may cause accidents or damage, for which Nitta is not liable.



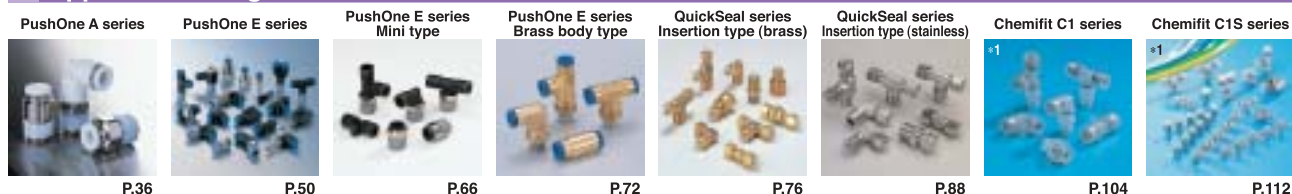
Handling instructions

⚠ Caution When water is used as the operating fluid, the tube material might degrade depending on the additive. Contact us for details.

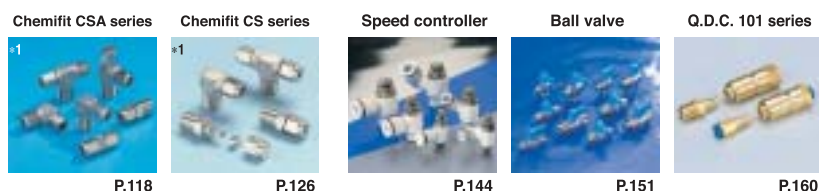
⚠ Caution When water is used as the operating fluid, keep the surge pressure below the maximum working pressure. Also, do not allow the water to freeze.

📖 See page 10 for common instructions for tube products.

Applicable fittings



Applicable fittings



Allied products and product introduction

Reference

Chemical resistance specification tableP.207
Effective cross-sectional areaP.176
Negative-pressure performance listP.177

(*1) Combinatory use of U1 tube and Chemifit series mixes general and clean type performances. When using them in a clean environment, pay attention to the clean level that could be lowered.

U5

For general air pressure (ultra flexible)

Features

- The smallest bending stress among polyurethane tubes ensures high workability.
- Ether polyurethane resin is used to prevent degradation by water or mold under high temperature and high humidity.
- Usable for barb fittings (bamboo-shoot fittings).



Product number table

● Millimeter size type (Group 4)

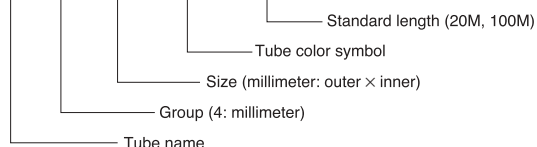
Type	Outer diameter × Inner diameter (mm)	Max. working pressure (MPa at 20°C)	Min. bending radius (mm)	Weight (g/m)	Standard color (color symbol)							
					Black	Yellow brown	Clear	Clear blue	Clear green	Clear red	Clear yellow	
U5-4-3.5×2	3.5×2	0.4	7	8	BK	BYL	CL	CBU	CGN	CRE	CYL	
U5-4-4×2.5	4×2.5		10	9	●	●	●	●	●	●	●	
U5-4-6×4	6×4		15	19	●	●	●	●	●	●	●	

Standard length

20M, 100M

Product number example

U5 - 4 - 6×4 - BK - 100M



Operating fluid, working temperature range

Operating fluid	Working temperature range
Air	-40°C~+80°C

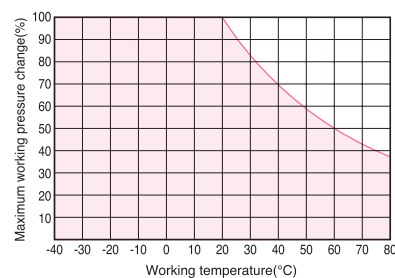
Negative pressure performance

-101.294kPa

Relation between the working temperature and the maximum working pressure

The maximum working pressure varies with the working temperature (environmental temperature). For use at an abnormal temperature, always check the maximum working pressure change in the graph below and keep the pressure within the indicated range.

⚠ Caution Using tubes at a pressure outside the range may cause accidents or damage, for which Nitta is not liable.

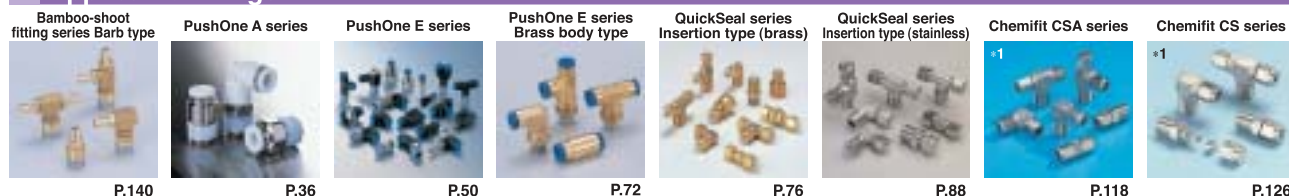


Handling instructions

⚠ Caution Water should not be used for operating fluid because of possible hydrolysis.

📖 See page 10 for common instructions for tube products.

Applicable fittings



(*1) Combinatory use of U5 tube and Chemifit series mixes general and clean type performances. When using them in a clean environment, pay attention to the clean level that could be lowered.

Allied products and product introduction



Reference

Chemical resistance specification tableP.207
Effective cross-sectional areaP.176
Negative-pressure performance listP.177

N2

For multi-purpose piping

Features

- High oil resistance and chemical resistance
- Group 2 type endures up to 4.8MPa (at 20°C).
- High abrasion resistance



Product number table

● Millimeter size type (Group 4)

Type	Outer diameter × Inner diameter (mm)	Max. working pressure (MPa at 20°C)	Min. bending radius (mm)	Weight (g/m)	Standard color (color symbol)					
					Black	Milky white	Yellow	Blue	Green	Red
N2-4-4×2	4×2	5.0	10	11	●	○	●	●	●	●
N2-4-4×2.5	4×2.5	3.3	15	8	●	○	●	●	●	●
N2-4-4×3	4×3	2.0	20	6	●	○	●	●	●	●
N2-4-6×4	6×4	3.0		17	●	○	●	●	●	●
N2-4-6×4.5	6×4.5	2.0	35	13	●	○	●	●	●	●
N2-4-8×6	8×6			23	●	○	●	●	●	●
N2-4-10×7.5	10×7.5	1.6	45	35	●	○	●	●	●	●
N2-4-10×8	10×8			29	●	○	●	●	●	●
N2-4-12×9	12×9			51	●	○	●	●	●	●
N2-4-16×13	16×13	1.6	100	70	●	○	●	●	●	●

● Inch size type (Group 1)

Type	Outer diameter × Inner diameter (mm)	Max. working pressure (MPa at 20°C)	Min. bending radius (mm)	Weight (g/m)	Standard color (color symbol)					
					Black	Milky white	Yellow	Blue	Green	Red
N2-1-1/8	3.18×2.25	2.3	13	4	●	○	●	●	●	●
N2-1-3/16	4.76×3.48		16	9	●	○	●	●	●	●
N2-1-1/4	6.35×4.57		23	16	●	○	●	●	●	●
N2-1-5/16	7.94×5.90		29	23	●	○	●	●	●	●
N2-1-3/8	9.53×6.99			35	●	○	●	●	●	●
N2-1-1/2	12.70×9.56		45	58	●	○	●	●	●	●
N2-1-5/8	15.88×11.10		140	107	●	○	●	●	●	●

● Inch size type (Group 2) –High pressure type–

Type	Outer diameter × Inner diameter (mm)	Max. working pressure (MPa at 20°C)	Min. bending radius (mm)	Weight (g/m)	Standard color (color symbol)	
					Black	Milkywhite
N2-2-1/8	3.18×1.60	4.8	7	6	●	○
N2-2-3/16	4.76×2.42		12	14	●	○
N2-2-1/4	6.35×3.21		13	25	●	○
N2-2-5/16	7.94×4.02			39	●	○
N2-2-3/8	9.53×4.81		19	56	●	○
N2-2-1/2	12.70×6.40		26	99	●	○

☞ Use fittings of insertion type (Group 2) in QuickSeal series.

Standard length

20M, 100M

Product number example

N2 - 4 - 6×4 - BK - 100M

— Standard length (20M, 100M)
 — Tube color symbol
 — Size (millimeter: outer × inner, inch: outer)
 — Group (4: millimeter, 1: inch, 2: inch [high pressure type])
 — Tube name

Operating fluid, working temperature range

Operating fluid	Working temperature range
Air	−40°C~+80°C
Water	0°C~+70°C
General operating oil	−40°C~+100°C

☞ Contact us for other operating fluids.

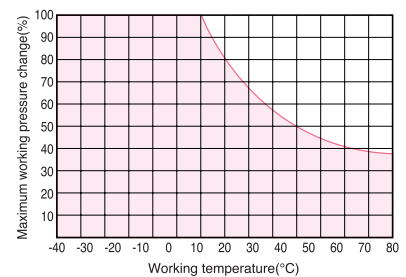
Negative pressure performance

−101.294kPa

Relation between the working temperature and the maximum working pressure

The maximum working pressure varies with the working temperature (environmental temperature). For use at an abnormal temperature, always check the maximum working pressure change in the graph below and keep the pressure within the indicated range.

⚠ Caution Using tubes at a pressure outside the range may cause accidents or damage, for which Nitta is not liable.



Handling instructions

⚠ Caution When water is used as the operating fluid, the tube material might degrade depending on the additive. Contact us for details.

⚠ Caution When water is used as the operating fluid, keep the surge pressure below the maximum working pressure. Also, do not allow the water to freeze.

☞ See page 10 for common instructions for tube products.

Applicable fittings

PushOne A series	PushOne E series	PushOne E series Mini type	PushOne E series Brass body type	QuickSeal series Insertion type (brass)	QuickSeal series Insertion type (stainless)	QuickSeal series Insertless type
P.36	P.50	P.66	P.72	P.76	P.88	P.94

Allied products and product introduction

Speed controller	Ball valve	Q.D.C. 101 series	Flexible fluorocarbon resin bilayer tube	Nylon coil tube	Multi-pack tube
P.144	P.151	P.160	P.18	P.32	P.33

Reference

Chemical resistance specification tableP.207
 Effective cross-sectional areaP.176
 Negative-pressure performance listP.177

Features

- Most flexible nylon tube
- High abrasion resistance
- High oil resistance and chemical resistance



Product number table

● Millimeter size type (Group 4)

Type	Outer diameter × Inner diameter (mm)	Max. working pressure (MPa at 20°C)	Min. bending radius (mm)	Weight (g/m)	Standard color (color symbol)					
					Black	Milky white	Yellow	Blue	Green	Red
					BK	MW	YL	BU	GN	RE
N5-4-4×2	4×2	1.8	10	11	●	○	●	●	●	●
N5-4-4×2.5	4×2.5	1.2	15	8	●	○	—	—	—	—
N5-4-4×3	4×3	0.7	20	6	●	○	●	●	●	●
N5-4-6×4	6×4	1.1		17	●	○	●	●	●	●
N5-4-6×4.5	6×4.5	0.7	35	13	●	○	●	●	●	●
N5-4-8×6	8×6			23	●	○	●	●	●	●
N5-4-10×7.5	10×7.5	0.6	45	35	●	○	●	●	●	●
N5-4-10×8	10×8			29	●	○	●	●	●	●
N5-4-12×9	12×9	0.7	100	51	●	○	●	●	●	●
N5-4-16×13	16×13	0.6		70	●	○	—	—	—	—

● Inch size type (Group 1)

Type	Outer diameter × Inner diameter (mm)	Max. working pressure (MPa at 20°C)	Min. bending radius (mm)	Weight (g/m)	Standard color (color symbol)	
					Black	Milky white
					BK	MW
N5-1-3/16	4.76×3.48	0.8	16.0	9.0	●	○
N5-1-1/4	6.35×4.57		23.0	16.0	●	○
N5-1-5/16	7.94×5.90		29.0	23.0	●	○
N5-1-3/8	9.53×6.99		45.0	35.0	●	○
N5-1-1/2	12.70×9.56		45.0	58.0	●	○

Standard length

20M, 100M

Product number example

N5 - 4 - 6×4 - BK - 100M

Standard length (20M, 100M)
 Tube color symbol
 Size (millimeter: outer × inner, inch: outer)
 Group (4: millimeter, 1: inch)
 Tube name

Operating fluid, working temperature range

Operating fluid	Working temperature range
Air	-40°C~+100°C
Water	0°C~+50°C
General operating oil	-40°C~+100°C

☎ Contact us for other operating fluids.

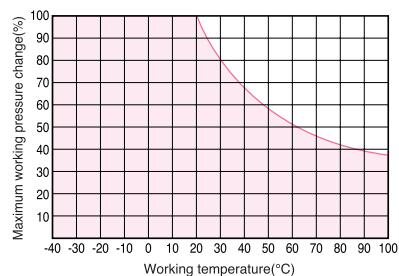
Negative pressure performance

-101.294kPa

Relation between the working temperature and the maximum working pressure

The maximum working pressure varies with the working temperature (environmental temperature). For use at an abnormal temperature, always check the maximum working pressure change in the graph below and keep the pressure within the indicated range.

⚠ Caution Using tubes at a pressure outside the range may cause accidents or damage, for which Nitta is not liable.



Handling instructions

⚠ Caution When water is used as the operating fluid, the tube material might degrade depending on the additive. Contact us for details.

⚠ Caution When water is used as the operating fluid, keep the surge pressure below the maximum working pressure. Also, do not allow the water to freeze.

☎ See page 10 for common instructions for tube products.

Applicable fittings



P.36

P.50

P.66

P.72

P.76

P.88

P.94

Allied products and product introduction



P.144

P.151

P.160

P.33

Reference

Chemical resistance specification tableP.207
 Effective cross-sectional areaP.176
 Negative-pressure performance listP.177

Nylon Tube

N1

Hard (unplasticized) nylon

Features

- 100% unplasticized nylon resin tube
- Suitable for high pressure application
- Usable at a high temperature (up to 120°C)



Product number table

● Millimeter size type (Group 4)

Type	Outer diameter × Inner diameter (mm)	Max. working pressure (MPa at 20°C)	Min. bending radius (mm)	Weight (g/m)	Standard color (color symbol)	
					Black	Milky white
					BK	MW
N1-4-6×4	6×4	5.0	20.0	17.0	●	○
N1-4-8×6	8×6	3.3	30.0	23.0	●	○

● Inch size type (Group 1)

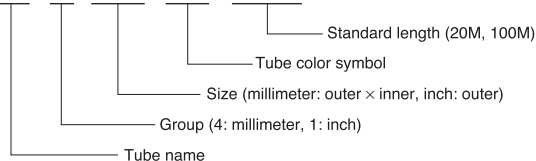
Type	Outer diameter × Inner diameter (mm)	Max. working pressure (MPa at 20°C)	Min. bending radius (mm)	Weight (g/m)	Standard color (color symbol)	
					Black	Milky white
					BK	MW
N1-1-1/4	6.35×4.57	4.0	23.0	16.0	●	○

Standard length

20M, 100M

Product number example

N1 - 4 - 6×4 - BK - 100M



Operating fluid, working temperature range

Operating fluid	Working temperature range
Air	-40°C~+120°C
Water	0°C~+70°C
General operating oil	-40°C~+120°C

☎ Contact us for other operating fluids.

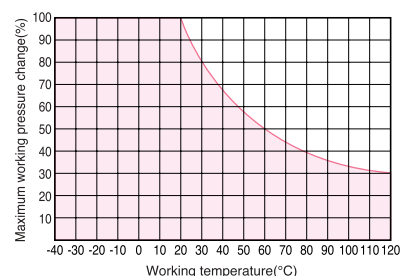
Negative pressure performance

-101.294kPa

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Handling instructions

⚠ Caution When water is used as the operating fluid, the tube material might degrade depending on the additive. Contact us for details.

⚠ Caution When water is used as the operating fluid, keep the surge pressure below the maximum working pressure. Also, do not allow the water to freeze.

☎ See page 10 for common instructions for tube products.

Applicable fittings

PushOne A series	PushOne E series	PushOne E series Mini type	PushOne E series Brass body type	QuickSeal series Insertion type (brass)	QuickSeal series Insertion type (stainless)	QuickSeal series Insertless type
P.36	P.50	P.66	P.72	P.76	P.88	P.94

Allied products and product introduction



Contact us for 2- and 3-dimensional bending processing.

Reference

Chemical resistance specification tableP.207
Effective cross-sectional areaP.176
Negative-pressure performance listP.177

Tube

Clean tube

Processed tube

PushOne fitting

QuickSeal fitting

Clean fitting/Chemifit

Bamboo-shoot fitting

Control switch/Detachable series

Jig/Tool/Accessory

Technical information

Reference

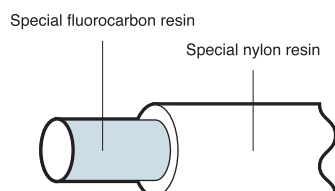
TES

For coating (flexible, abrasion resistant)

Features

- Bilayer structure of inner (special fluorocarbon resin) and outer (special nylon resin) layers
- Super flexible and suitable for movable piping for robots.
- Highly smooth and highly chemical resistant inner surface, and highly abrasion resistant outer surface
- The translucent tube enables the fluid to be seen.

Structure diagram



Product number table

● Millimeter size type (Group 4)

Type	Outer diameter × Inner diameter (mm)	Max. working pressure (MPa at 20°C)	Min. bending radius (mm)	Weight (g/m)	Standard color (color symbol)
					Translucent CWH
TES-4-4×2.5	4×2.5	1.8	15	9	○
TES-4-6×4	6×4	1.8	20	18	○
TES-4-8×6	8×6	1.5	35	26	○
TES-4-10×8	10×8	1.1	50	33	○

☞ Inch size type is available on request. Contact us for details.

Standard length

20M, 100M

Product number example

TES - 4 - 6×4 - BK - 100M

— Standard length (20M, 100M)
 — Tube color symbol
 — Size (millimeter: outer × inner)
 — Group (4: millimeter)
 — Tube name



Operating fluid, working temperature range

Operating fluid	Working temperature range
Air	-40°C~+100°C
Water	0°C~+70°C
Water-based paint (*)	0°C~+40°C

(*) Water-based paint, or aliphatic or aromatic carbon hydride solvent.

☞ Contact us for other operating fluids.

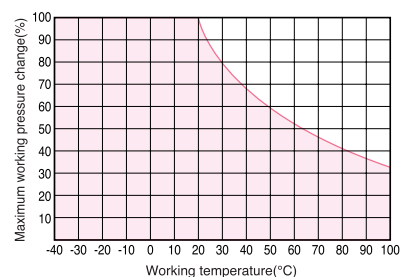
Negative pressure performance

-101.294kPa

Relation between the working temperature and the maximum working pressure

The maximum working pressure varies with the working temperature (environmental temperature). For use at an abnormal temperature, always check the maximum working pressure change in the graph below and keep the pressure within the indicated range.

⚠ Caution Using tubes at a pressure outside the range may cause accidents or damage, for which Nitta is not liable.



Handling instructions

⚠ Caution When water is used as the operating fluid, the tube material might degrade depending on the additive. Contact us for details.

⚠ Caution When water is used as the operating fluid, keep the surge pressure below the maximum working pressure. Also, do not allow the water to freeze.

☞ See page 10 for common instructions for tube products.

Applicable fittings

QuickSeal series
Insertion type (brass)



P.76

QuickSeal series
Insertion type (stainless)



P.88

Chemifit CSA series



P.118

Chemifit CS series



P.126

(*) Combinatory use of TES tube and Chemifit series mixes general and clean type performances. When using them in a clean environment, pay attention to the clean level that could be lowered.

Reference

Chemical resistance specification tableP.207
Effective cross-sectional areaP.176
Negative-pressure performance listP.177

● Comparison of flexibility

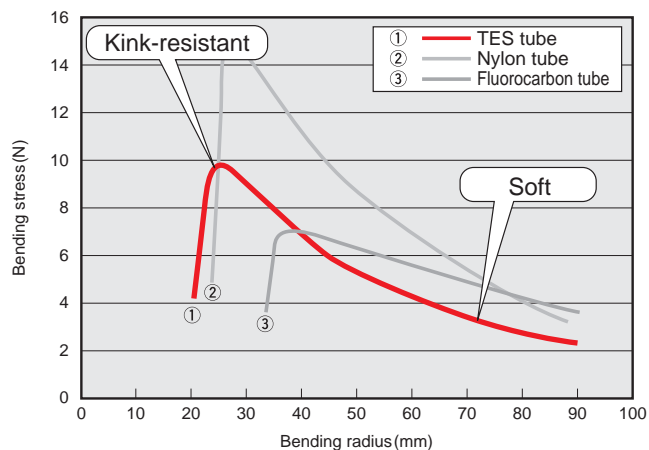
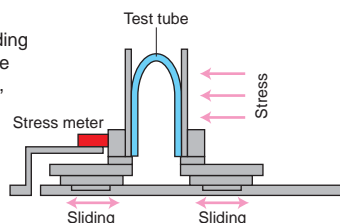


Test method

A test tube is placed on a bending strength measurement machine and bent until a kink is created, at which moment the stress is measured.

Test condition

Test temperature:
Room temperature
Tube size: 8 x 6



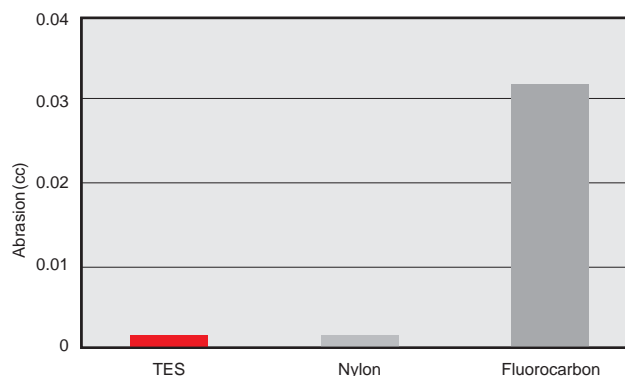
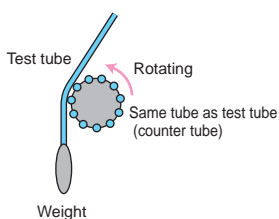
● Abrasion resistance

Test method

A tube suspended from above and a counter tube fixed on a rotating jig are rubbed together.

Test condition

Number of counter tubes: 11
Rotation speed: 60rpm
Number of rotations: 50,000
Weight mass: 500g
Test temperature: Room temperature



Chemical resistance performance table

Check chemical resistance of each material in Chemical resistance performance table for safe use of Nitta Moore's products.

Criteria

○ = No influence × = Unusable
△ = Sufficient confirmation required

*When contacting us for the criteria △, please check ① working pressure, ② maximum working temperature, ③ concentration, ④ piping status, and ⑤ application.

- The criteria of chemical resistance performance table are made under a certain condition. Therefore the criteria ○ can not ensure safety under a different condition, different environment, and different used period.
- Before using our products, check them under the actual use conditions in your company.
- Unless indicated specifically, test chemicals in the table are used at a saturated concentration and the test temperature is room temperature.
- The table presents the chemical resistance performance of materials, not the permeability of gas chemicals. Do not use chemicals (activated gases) that are hazardous if they permeate a tube.
- When using a QuickSeal series fitting at a high temperature within the working temperature range, tighten the nut periodically. If the nut cannot be tightened further, cut off the tube end and old sleeve and attach the tube again with a new sleeve.

Category	Chemicals	Inner surface (fluorocarbon resin)	Outer surface (nylon)	Category	Chemicals	Inner surface (fluorocarbon resin)	Outer surface (nylon)	Category	Chemicals	Inner surface (fluorocarbon resin)	Outer surface (nylon)
Inorganic acid	Hydrochloric acid (35%)	○	×	Organic acid	Acetic acid	△	×	Amine	Aniline	△	×
	Sulfuric acid (98%)	△	×		Oxalic acid	○	○		Pyridine	○	×
	Nitric acid (25%)	○	×		Citric acid	○	○		Ethylenediamine	△	△
	Phosphoric acid (50%)	○	×		Stearic acid	○	○		Dimethylformamide	△	×
					Formic acid	○	×	Phenol series	Phenol	○	△
Alkali	Caustic soda (10%)	○	△	Ester	Trichloroacetic acid	○	×		Benzaldehyde	△	△
	Caustic potash (10%)	○	△		Lactic acid	○	△		Nitrobenzene	△	△
	Ammonium hydroxide (15%)	○	△		Ethyl acetate	△	○		Benzene	○	△
Other inorganic substance	Chlorine	△	×		Butyl acetate	○	○	Aromatic series	Toluene	○	△
	Bromine	○	×	Alcohol	Methanol	○	△		Xylene	○	△
	Hydrogen peroxide	○	×		Ethanol	○	△		Cresol	○	×
	Water	○	○	Hydrocarbon	Propyl alcohol	○	△		Chloroform	○	△
Ketone	Acetone	△	△		Hexane	○	○	Halides	Carbon tetrachloride	○	△
	Methyl ethyl ketone	○	△		Mineral oil ASTM No.3	○	○		Trichloroethylene	○	△
	Methyl isobutyl ketone	○	△		Octane	○	○		Tetrachloroethylene	○	△
					Cyclohexane	○	○	Ether	Tetrahydrofuran	△	△
									Cellosolve	△	△

TA

For clean, heat-resistant, cold-resistant, chemical-resistant use

Features

- PFA (copolymer of tetrafluoroethylene – perfluoroalkyl vinyl ether) resin tube with high chemical resistance
- Produced, end-sealed, heat-sealed for shipping in a cleanroom
- Easy cleaning with little remaining fluid inside
- Little secular change and high weather resistance
- Usable in ozone environment
- Usable for clean fittings of Chemifit CSA series
- Compliant with the MHLW Ministerial Notification No.201(2006), MHW Ministerial Notification No.370(1959), Japan

Product number table

● Millimeter size type (Group 4)

Type	Outer diameter × Inner diameter (mm)	Max. working pressure (MPa at 20°C)	Min. bending radius (mm)	Weight (g/m)	Standard color (color symbol)	
					Translucent	CWH
TA-4-3×2	3×2	1.5	20	8.5	○	○
TA-4-4×2	4×2	2.5	25	20	○	○
TA-4-4×3	4×3	0.9	30	12	○	○
TA-4-6×4	6×4	1.6	30	34	○	○
TA-4-8×6	8×6	1.1	50	47	○	○
TA-4-10×8	10×8	0.8	70	61	○	○
TA-4-12×9	12×9	1.1	70	106	○	○
TA-4-12×10	12×10	0.7	100	74	○	○
* TA-4-14×12	14×12	0.6	150	89	○	○
* TA-4-17×14	17×14	0.7	300	159	○	○
TA-4-19×16	19×16	0.6	400	179	○	○
* TA-4-24×20	24×20		500	300	○	○
* TA-4-25×22	25×22	0.5	600	240	○	○

*Made to Order

● Inch size type (Group 1)

Type	Outer diameter × Inner diameter (mm)	Max. working pressure (MPa at 20°C)	Min. bending radius (mm)	Weight (g/m)	Standard color (color symbol)	
					Translucent	CWH
TA-1-1/4	6.35×4.57	1.1	30	33	○	○
TA-1-3/8	9.53×6.99	1.1	50	71	○	○
TA-1-1/2	12.70×9.56	1.1	60	118	○	○

● Inch size type (Group 5) Different inner diameter from Group 1

Type	Outer diameter × Inner diameter (mm)	Outer diameter	Max. working pressure (MPa at 20°C)	Min. bending radius (mm)	Weight (g/m)	Standard color (color symbol)	
						Translucent	CWH
TA-5-3.18×2	3.18×2	1/8	1.5	7	10	○	○
TA-5-6.35×3.96	6.35×3.96	1/4	1.7	45	42	○	○
TA-5-9.53×6.35	9.53×6.35	3/8	1.5	60	86	○	○
TA-5-12.7×9.53	12.70×9.53	1/2	1.1	90	120	○	○
* TA-5-19.1×15.9	19.10×15.9	3/4	0.6	400	186	○	○
* TA-5-25.4×22.2	25.40×22.2	1	0.5	600	240	○	○

☞ Applicable fittings for Group 5 are Chemifit C1 series and Chemifit C1S series with the same outer diameter.

*Made to Order

Product number example

TA - 4 - 6×4 - CWH - 100M

Standard length (20M, 100M)
Tube color symbol
Size (millimeter: outer × inner, inch: outer)
Group (4: millimeter, 1: inch, 5: inch)
Tube name

Standard length

20M, 100M

☞ TA-4- 14×12, 17×14, 19×16,
24×20, 25×22 and
TA-5- 19.1×15.9, 25.4×22.2:
20M only



Operating fluid, working temperature range

Operating fluid	Working temperature range
Air (clean air)	-65°C~+260°C
Water (pure water)	0°C~+100°C

☞ Contact us for various chemical liquids.

☞ See "Combination List of Tube and Fitting" on page 8.

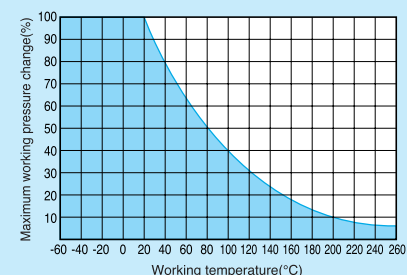
Negative pressure performance

-101.294kPa

Relation between the working temperature and the maximum working pressure

The maximum working pressure varies with the working temperature (environmental temperature). For use at an abnormal temperature, always check the maximum working pressure change in the graph below and keep the pressure within the indicated range.

⚠ Caution Using tubes at a pressure outside the range may cause accidents or damage, for which Nitta is not liable.



Handling instructions

⚠ Caution When water is used as the operating fluid, keep the surge pressure below the maximum working pressure. Also, do not allow the water to freeze.

☞ See page 10 for common instructions for tube products.

Applicable fittings

Chemifit C1 series	Chemifit C1S series	Chemifit CSA series	Chemifit CS series	Chemifit CP series	PushOne A series	PushOne E series	PushOne E series Mini type
P.104	P.112	P.118	P.126	P.134	P.36	P.50	P.66

Applicable fittings

PushOne E series Brass body type	QuickSeal series Insertion type (brass)	QuickSeal series Insertion type (stainless)
P.72	P.76	P.88

Allied products and product introduction

Chemifit C1 Speed controller	Various bending processing
P.146	

Products with high-graded PFA material are available on request. Contact us for details.

Reference

Chemical resistance specification tableP.207
Effective cross-sectional areaP.176
Negative-pressure performance listP.177

(*) Combinatory use of TA tube and Chemifit series mixes general and clean type performances. When using them in a clean environment, pay attention to the clean level that could be lowered.
(*) Contact us for specifications.