

Features

- These tubes have a high burst pressure of 3.0 MPa (at 20°C) and are usable in a wide range.
- They excel in flexibility. Their bending radii are smaller than before.
- A series of 12-mm dia. tubes is available.
- They have excellent outside diameter accuracy and are reliable when used with quick joints.

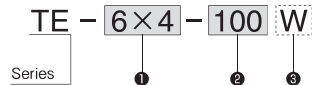
Use

- General pneumatic equipment
- Medical equipment
- Fluid devices
- Others

Specifications

Model					
Item	TE-4×2.5	TE-6×4	TE-8×5	TE-10×6.5	TE-12×8
Tube OD (mm)	φ4	φ6	φ8	φ10	φ12
Tube ID (mm)	φ2.5	φ4	φ5	φ6.5	φ8
Working pressure (MPa)	See the right table (1.0 MPa max. for air)				
Burst pressure (MPa) at 20℃	3.0 MPa				
Min. bending radius (mm)	5	12	15	25	28
Outside diameter accuracy (mm)	±0.1			+0.1 to -0.15	
Working temperature range	-5 to +60℃ (No freezing)				
Material	Urethane				
Tube color	Standard: black Order made: white, yellow, red, green blue, clear, light green, clear blue, orange				
Standard sales unit	20 m/100 m				
Weight (g/m)	9	19	37	55	76

Model Number When placing an order, specify the model number shown below.

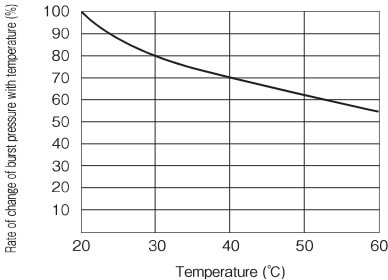


Explanation of Symbols

1	Tube (OD (mm)×ID (mm))			
	Tube length			
2	20	20	m	
	100	100	m	
	Tube color			
	Blank	Black (standard)	W	White
	Y	Yellow	R	Red
3	G	Green	B	Blue
	T	Clear	LG	Light green
	TB	Clear blue	OR	Orange



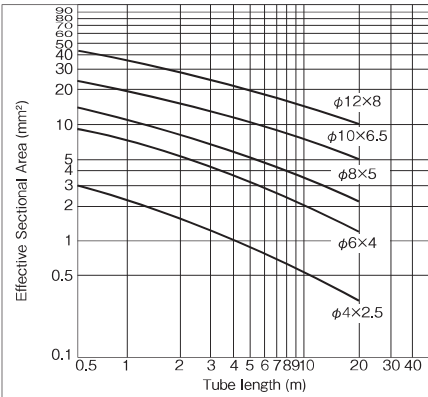
Dependence of Burst Pressure on Working Temperature



Calculation formula Working pressure (MPa)  
=burst pressure at 20°C×rate of change  
×safety factor (1/3 to 1/4 depending  
on operating conditions)

Calculation example When the working temperature is 50°C:  
Burst pressure, 3 MPa×rate of change with temperature,  
63%×1/3=0.63 MPa

Effective Sectional Area (mm²)



Features

- The tubes conform to UL94 V-0, have excellent self-extinguishing properties and do not continue to burn intensely.
- One-layer structure excelling in flexibility.

Use

- General pneumatic equipment
- Others

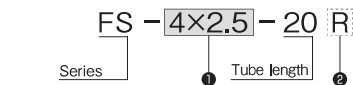


Specifications

Model	FS-4×2.5	FS-6×4	FS-8×5	FS-10×6.5	FS-12×8
Item					
Tube OD (mm)	φ4	φ6	φ8	φ10	φ12
Tube ID (mm)	φ2.5	φ4	φ5	φ6.5	φ8
Working pressure range (MPa)	Calculated from the working temperature and max. working pressure change rate curve				
Max. working pressure (MPa) at 20 (1.0 MPa max. for air)	1.0	1.0	1.2	1.0	1.0
Min. bending radius (mm)	10	15	15	20	30
Working fluid	Air, water, general hydraulic fluids				
Working temperature range	Air: -40 to +100°C Water: 0 to +70°C General hydraulic fluids: -40 to +80°C (No freezing)				
Material	Thermoplastic elastomer				
Tube color	Standard: black Order made: white, red, blue, yellow, green				
Standard sales unit	20 m				
Weight (g/m)	10	21	40	60	82

Note) When water or a general hydraulic fluid is used, keep the surge pressure within the working pressure range during operation.

Model Number When placing an order, specify the model number shown below.



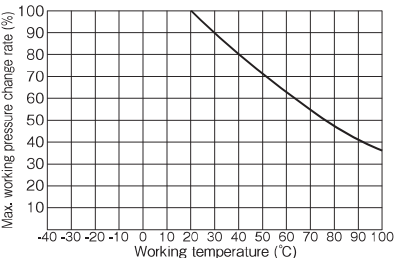
Explanation of Symbols

1	Tube (OD (mm)×ID (mm))			
	Tube color			
	Blank	Black	B	Blue
2	W	White	G	Green
	R	Red	Y	Yellow

! Dependence of max. working pressure on working temperature

The max. working pressure varies depending on the working temperature (ambient temperature).  
When equipment is operated at a temperature other than normal temperature, see the max. working pressure change rate shown in the following graph, and use it within the max. working pressure range. If the tubes are used out of the allowable range, accidents and premature breakage can occur. In such a case, we are not reliable for the trouble.

Working Temperature and Max. Working Pressure Change Rate



Calculation example

Max. working pressure of FS-12×8 at 40°C  
Max. working pressure at 20°C: 1.0 MPa (from specification table)  
Max. working pressure change rate at 40°C: 80% (from curve)  
Therefore, 1.0 MPa×80%=0.8 MPa

Tube Length and Effective Sectional Area

