



Thermoflon

PASCAL

High-performance transparent fluoroelastomer tube

Thermoflon [Pascal]

<Applications> Physical and chemical equipment,
semiconductor industry, chemical industry
Electronic equipment industry, food machinery, and others

High-end type of Thermoflon series that realizes excellent pressure resistance performance.

The chemical durability of Thermoflon [Advance] and various barrier properties are further enhanced.

- **Withstand voltage resistance is one class higher**

Excellent pressure resistance performance in a flexible tube without braiding.

- **Excellent chemical resistance**

It has chemical resistance similar to that of fluororesin.

It is durable even against strong oxidizing ozone.

- **Excellent transparency**

No reinforcing agents such as carbon are added and it is colorless and transparent.

- **Less contamination from leaching**

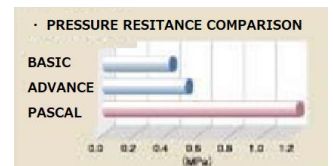
As it contains no cross-linkers, stabilizers or plasticizers, there is almost no risk of dissolution.

- **Excellent flexibility**

It is a feature that fluororesin does not have, and it is a big attraction.

- **Excellent barrier properties**

Among soft tubes, various barrier properties are top class.



■General properties of thermoflon

		Thermoflon	General fluorine Rubber tube
Specific gravity		1.89	1.8~2.1
Hardness	JIS A	67	55~90
Melting point	°C	220	—
Thermal decomposition start temperature	°C	380	400 and more
Thermal conductivity	cal/cm Sec · °C	3.6×10E-4	6.0×10E-4
Specific heat	cal/g · °C	0.3	0.3
Low temperature torsion test (T50)	°C	-9	-20~-8
Growth	%	620	600~150
Tensile test	MPa	15	7~22
Tear strength	kN/m	28	17~25
Compression set 50°C×24h	%	57	5~27
Coefficient of friction		0.6	0.6~0.7
Impact resilience		10	10~15
Volume resistivity抗	Ω · cm	5×10E13	1×10E13
Breakdown voltage	kV/0.15mm	16	9.3
Dielectric constant 23°C	kHz	5.9	13.8

■Food safety (Food Sanitation Law No. 370 test)

Test items	Thermoflon
lead	Conform
cadmium	Conform
heavy metal	Not detected
Potassium permanganate	Conform

■Standard size

Inner diameter (mm)	Outer diameter (mm)
1.0	3.0
2.0	4.0
3.0	5.0
4.0	6.0
5.0	7.0
6.0	8.0
7.0	10.0
8.0	11.0
9.0	12.0

Please contact us for other sizes.

※The data described in this catalog are typical values, not guaranteed values.

Be sure to perform a confirmation test on the customer side when selecting tubes.

※The products described in this catalog are not manufactured for use in medical applications that come into contact with living tissues.

■Chemical resistance

Drug name	Evaluation	薬品名	評価
<acid>		<ケトン>	
Hydrochloric acid (35%)	○	アセトン	●
Sulfuric acid (98%)	○	メチルエチルケトン	●
Nitric acid (70%)	○	<カルボン酸>	
Phosphoric acid(85%)	○	酢酸 (氷酢酸)	○
<alkali>		<エステル>	
Sodium hydroxide(30)	○	酢酸エチル	●
sodium hypochlorite	○	プロピレングリコール	
<hydrocarb on>		モノメチルエーテルアセテート	
n-hexane	○	γ-ブチロラクトン	○
Cyclohexane	○	<塩素系溶剤>	
<Aromatic>		メチレンクロライド	○
toluene	○	1,2-ジクロロエタン	○
Xylene	○	トリクロロエチレン	○
<alcohol>		テトラクロロエチレン	○
methanol	○	<アミド>	
Ethyl alcohol	○	N,N-ジメチルホルムアミド	●
Isopropyl alcohol	○	1-メチル-2-ピロリドン	○
<ether>		<その他>	
Diethyl ether	○	ジメチルスルホキシド	○
Tetrahydrofuran	●	ASTM#2 oil	○
		ガソリン	○

・ Test method: Measure the weight change after soaking in each chemical for 7 days at room temperature.

・ Evaluation of the inner surface where all fluids come into contact. However, it may change depending on the usage conditions.

* Weight increase rate

- Less than 5
- Above 5 and less than 10
- △ Above 10 and less than 20
- × More than 20 or not recommended