

Thermoflon

ADVANCE

High-performance transparent fluoroelastomer tube

Thermoflon [Advance]

This type has improved chemical durability and gas barrier properties by eliminating the inner adhesiveness of Thermoflon [Basic].

■ Characteristics

● Chemical resistance and barrier properties

It has chemical resistance similar to that of fluororesin

● Excellent flexibility

It has great features and features not found in fluororesin tubes (PTFE, FEP, PFA, etc.).

● Excellent transparency

It is transparent with no reinforcing agents such as carbon added.

● Less pollution due to elution

Since there is no cross-linking agent, stabilizer or plasticizer, there is almost no risk of elution.

● No special joint required

Flexible tube allows you to connect with universal fittings

● No stress for the tube blockade

We have eliminated the internal adhesiveness of Thermoflon [Basic] with our unique technology.

● Excellent heat resistance

Continuous operating temperature is 150°C (however, it varies slightly depending on the operating environment)

Fluorine-based elastomer

Layer fluororesin



Various applications as a transparent and flexible chemical resistant tube

■ 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	—
Thelma decomposition star temperature	°C	380	400 and more
Thermal conductivity	cal/cm sec · °C	3.6×10E-4	6.0×10E-4
Specific Hear	cal/g · °C	0.3	0.3
Low temperature torsion test (T50)	°C	-9	-20~-8
Elongation	□	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	Ω · c m	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)

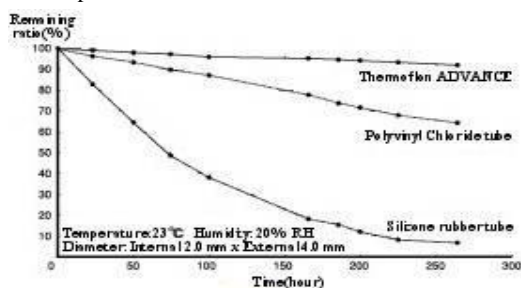
Test item	Thermoflon
Lead	Compatible
Cadmium	Compatible
Heavy metal	Not detected
Compatible with potassium permanganate	Compatible

■ Size

Inner Diam (mm)	Out Diam (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

■ Water permeation test



Liquid chemical	Evaluation	Liquid chemical	Evaluation
〈Acid〉		〈Ketone〉	
Hydrochloric acid (35%)	○	Acetone	×
Sulfuric acid (98%)	○	Methyl Ethyl Ketone	×
Nitric acid (70%)	○	〈Carboxylic acid〉	
Phosphoric acid (85%)	○	Acetic acid (glacial acetic acid)	●
〈Alkali〉		〈Ester〉	
Sodium hydroxide (30%)	○	Ethyl Acetate	×
Sodium hypochlorite	○	Proprietary glycol monoethyl ether = acetate	△
〈Hydrocarbon〉			
N-Hexane	○	γ-butyrolactan	○
Cyclohexane	○	〈Chlorine solvent〉	
〈Aromatic〉		Dichloromethane	●
Toluene	○	1,2-dichloroethane	○
Xylene	○	Trichloroethylene	●
〈Alcohol〉		Tetrachloroethylene	○
Methanol	○	〈Amid〉	
Ethanol	○	N,N-dimethylformamide	×
IPA	○	1-methyl-2-pyrrolidone	×
〈Ether〉		〈Other〉	
Diethyl ether	●	Dimethyl sulfoxide	○
Tetrahydrofuran	×	ASTM#2 oil	○
		Gasoline	(*)

◆ Test method: After immersion in each chemical for 7 days at room temperature, change in weight was measured.

○: less than 5%

●: 5% or more and less than 10%

△: 10% or more and less than 20%

×: More than 20% or not recommended.

*The data shown in this catalog are typical values, not guaranteed values. When selecting a tube, be sure to perform a confirmation test on the customer side. The products described in this catalog are not manufactured for use in medical applications that come into contact with living tissues.

*The Thermoflon series may change to pink when exposed to light for a long time, but this does not affect the physical properties.

(It is recommended to store it in a cool place out of the sun or cover it with a black bag)