

POPUREX TH2000

High Performance Olefin Elastomer Tube

[Applications / fields] Physical and chemical instruments, analytical instruments, chemical industry, general machinery industry, electronic equipment industry, etc.

Transparent flexible tube resistant to ketone solvents such as acetone

- **Shows resistance to chemicals with strong denaturing action.**

It has resistance to solvents such as acetone and MEK.

Size (mm)

Inside Diameter	Outside Diameter
2.0	4.0
3.0	5.0
4.0	6.0
7.0	10.0

- **Excellent transparency and bending.**

High performance when it comes to buckling.

- **Eco-friendly tube.**

Not harmful substances to the environment.

During complete burning it is broken down into water and carbon dioxide.

- **Less contamination due to elution.**

No cross-linking agents, stabilizers, and plasticizers eliminate elution.

- **Excellent water repellency.**

High contact angle with water, effective in preventing retention of fluid particle components.

■ General Material

Item	Unit	Test Method	Measured Value
Density	g/cm ³	ASTM D1505	0.88
Tensile strength	MPa	JIS K6301	25
Elongation	%	JIS K6301	760
Hardness	JIS A		85
Vicat softening point	°C	JIS K7206	56
Glass-transition temperature	°C	DSC法	-43
Volume specific resistance	Ω-cm	ASTM D257	>10 ¹⁸
Dielectric constant		ASTM D150	2.1

■ Air permeability (cc/m²·24h·atm)

Size	N ₂	O ₂
3.0 × 5.0mm	67.9	194.9

It passed through a tube placed in a thermostat, and the air permeating into it is separated into oxygen and nitrogen by gas chromatography and quantified.
Sample gas; air measurement Temperature; 40 ° C

■ Water permeability (Inside factory test)

Compare size: 3.0mm inside diameter x 5.0mm outside diameter

Product	Water remaining rate
TH2000	97.9%
Soft PVC	65% bellow
Silicone	10% bellow

Seal the water in a tube at 40 ° C, 20% RH and measure the residual amount of water after 14 days

■ Use limit bending radius and pressure resistance value (measurement: 23 ° C)

Size (mm) (Inner x outer diam.)	Critical bending	Withstand voltage (MPa)	
		Recommended breakdown voltage	Maximum pressure
30×50	125	08	1.4

Critical bending radius: Bending radius when the outer diameter becomes 90%

(Note) The products described in this document are not manufactured for use in medical device applications that come into contact with living tissues.

The data described in this pamphlet are representative values and not guaranteed values.

When selecting tubes, be sure to conduct a confirmation test on the customer side. Product specifications are subject to change without notice.

■ Chemical Resistance

Classification	Chemical Name	Evaluation
Acid	Hydrochloric acid (35%)	○
	Concentrated sulfuric acid (98%)	○
	Concentrated nitric acid (70%)	(※)
	Phosphoric acid (85%)	○
Alkali	Sodium hydroxide (30%)	○
	Sodium hypochlorite	○
Hydrocarbon	N-Hexane	×
	Cyclohexane	×
Aromatic	Toluene	×
	Xylene	×
Alcohol	Methanol	○
	Ethanol	○
	Isopropyl alcohol	○
Ether	Diethyl ether	×
	Tetrahydrofura	×
Ketone	Acetone	○
	Methyl ethyl ketone	○
Carboxylic acid	Acetic acid (99%)	○
Ester	Good ethyl acetate	●
	Promotion Tool = Remote	○
	γ-Butyrolactone	○
Chlorine Compound	Methylene Chloride	×
	1, 2 - Dichloroethane	△
	Tetrachloroethylene	×
	Trichlorethylene	×
Amine	N, N-Dimethylformamide	○
	1-methyl-2-pyrrolidone	○
Others	Dimethyl sulfoxide	○
	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.

(*) Weight change is less than 5%, but discoloration

