# NAFLON™ PFA CHEMICAL WARES



NAFLON™ PFA CHEMICAL WARES are the containers made from PFA fluorocarbon resin and made by the blow molding method. They have the exceptional chemical resistance, and little elution of impurities for almost all kinds of fluids. What is more, they have higher mechanical strength compared with the glass wares and are unbreakable even if dropped.

#### **Features**

- Superior chemical resisance for the strong acids, alkalis and solvents or most corrosive fluids on the market.
- Little elution of impurities.
- High mechanical strength compared with the glass wares.
- High transparency for easily checking the level of the inner

#### fluids.

- Equipped with inside plugs that improve the sealing performance.
- Easliy-identifiable date marks punched at the bottom of each
- Wide variety of product lineups, ranging from 50mL to 5L.

#### **Specifications**

#### Lineup

Lineup	Capacity	Parts
Narrow Mouth Bottles	50mL, 100mL, 250mL, 500mL, 1L, 2L, 3L, 5L	Main Body, Inside Plug, Cap
Wide Mouth Bottles	100mL, 250mL, 500mL, 1L	Main Body, Inside Plug, Cap

#### **Service Range**

We recommend that they be used at the ordinary temperatures and pressures.

In case of the usage to be heated or pressurized, you are recommended to carry out the verification test on your own according to the application.



Please use the protection equipment and protective gear that corresponds to the chemicals and conditions used.

#### **Sizes**

#### **Narrow Mouth Bottles**

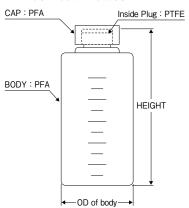
Size Capacity	Height (mm)	Outer Diameter of body (mm)
50mL	67	49
100mL	97	48
250mL	129	61
500mL	161	73
1L	198	92
2L	235	126
3L	260	148
5L	313	172

<sup>\*</sup>Por enquiries about capacities please contact us for other capacities and shapes.

#### Wide Mouth Bottles

Size Capacity	Height (mm)	Outer Diameter of body (mm)
100mL	101	49
250mL	131	60
500mL	170	73
1L	205	93

#### ■ Narrow Mouth Bottles • **Wide Mouth Bottles**



\*The height size is the height of the bottle body with the cap removed.



#### **Features**

### **Eluted Metals Measurement Results**

1 Specimen (n=1) ...... Size Narrow Mouth Bottles 500mL

2 Test Methods ...... A specimen is filled with 3.6% hydrochloric acid with it's mouth wrapped by polyethylene. It is stored at an ordinary temperature for one day, the 19 kinds of eluted metals are measured (first time) by ICP-MS method (Test Machine : Agilent Technologies). After washing with ultrapure water, it is stored for an extra day in the

same way, then the eluted metals are measured (Second time).

(unit: ppb)

3 Test Results

Test Results Element	First time	Second time
Li (Litium)	<0.001	<0.001
B (Boron)	<0.005	< 0.005
Na (sodium)	0.13	< 0.005
Mg (Magnesium)	0.016	< 0.001
AI (Aluminium)	0.009	< 0.005
P (phosphorus)	< 0.05	< 0.05
K (potassium)	0.11	< 0.001
Ca (calcium)	0.39	< 0.005
Ti (Titanium)	<0.001	< 0.001
Cr (chromium)	0.003	0.001
Mn (Manganese)	0.001	< 0.001
Fe (Iron)	0.054	< 0.005
Co (cobalt)	<0.001	< 0.001
Ni (Nickel)	0.012	0.007
Cu (Copper)	0.002	< 0.001
Zn (Zinc)	0.015	< 0.001
Mo (Molybdenum)	<0.001	< 0.001
Ba (Barium)	0.002	< 0.001
Pb (Lead)	<0.001	< 0.001
Detected amount of eluted metals	0.74	0.008

Inspected in NICHIAS

The adobe valves are actual mesurments and not standard specifications.

## Pressure cycle tests ...

Specimen (n=1) ...... Size Narrow Mouth Bottles 50mL, 100mL, 250mL, 500mL, 1L, 2L, 3L and 5L

**Test methods** ............. A PFA tube of 6 mm diameter with a fitting welded is connected into a specimen. After the cap is tightened by hand, the cycle of 100kPa x 10 sec ⇔ opening x 2 sec is made 1000 times. After the test, leakage and deformation are measured.

3 Test results ..... Each specimen has no leakage and deformation, excluding 5L.

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#### Cautions

- The products included in this catalog are intended for common use, including those presented in the catalog. If you intend to use any of the products in a way that requires extremely high quality and reliability such that any possible defect may directly affect the safety of human lives, please make sure to consult with our company in advance and take necessary measures at
- Because the stated material values may vary according to actual usage environments or circumstances, please consider such figures as indications for reference.

  The content of the catalog explains the features of the products when they are used alone.
- When actually using the products, please start using them after testing them under the actual usage environment.
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  - attributable to our company,

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    the improper use or use under abnormal conditions of the products;
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     Damage arising due to a situation which was unforeseeable under the technical standards
    at the time of the shipment of our company's product; or

  - -Damage arising due to reasons that are not attributable to our company.



# **NICHIAS Corporation**

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