

----- This is the English translation of PTFE_PFA analysis JP.pdf -----

For Sumitomo Electric Fine Polymer, Inc

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Analysis and Test Report
PFOA measurement from PTFE and PFA

Please feel free to ask our sales representative or personnel below if you have any inquiry on the test results.

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PFOA Measurement in PTFE and PFA

1. Objective

Measurement of PFOA (perfluoro-n-octanoic acid) quantity in test samples respectively.

2. Type and number of the test samples

- 1) Cross-linked PTFE (atmospheric baking)
- 2) Cross-linked PTFE (nitrogen baking)
- 3) PTFE
- 4) Cross-linked PFA (nitrogen baking)

Total 4 different test samples

3. Analysis and Test target

Perfluoro-n-octanoic acid (PFOA), CAS NO. 335-67-1

Total 1 test target

4. Analysis and Test method

4.1 Sample preparation

- Step 1) Added solvent to each test sample
Step 2) Performed ultrasonic extraction.
Step 3) Sampled a certain amount once the volume of the extract was measured.
Step 4) Added standard solution for calibration.
Step 5) Used it as liquidus sample for the testing.

4.2 Measuring method

Measured the liquidus samples acquired from 4.1 using liquid chromatograph-tandem mass spectrometer (LC-MS/MS).

5 Analysis and Test Results

Table 1 shows the analysis and test results.

Table 1. Analysis and Test Results

unit: $\mu\text{g/kg}$ (=ppb)	
Test sample	PFOA
1) Cross-linked PTFE (atmospheric baking)	<10
2) Cross-linked PTFE (nitrogen baking)	<10
3) PTFE	<10
4) Cross-linked PFA (nitrogen baking)	<10
Lower limit of quantitation	10