

Statement of Performance

Furon HP PFA 400 UC Tubing Cleanliness in 5% Nitric Acid

Furon HP PFA 400 UC 1/2-inch (12.7 mm) outer diameter (OD) tubing has been tested in 5% nitric acid in accordance with SEMI C90-1015 specification for Perfluoroalkoxy (PFA) Materials used in Liquid Chemical Distribution Systems at an independent test lab¹.

Test Conditions

Saint-Gobain produced a HP PFA UC tubing sample which was double bagged for cleanliness assurance and transport to testing facility.

The tubing was tested for compliance with the SEMI C90-1015, the new industry standard for measuring and limiting the amount of Iron contamination in PFA materials used in the semiconductor industry for liquid chemical distribution systems.

The tubing was filled and leached with 5% by weight nitric acid for 24 hours at room temperature and normalized to the $\mu\text{g}/\text{m}^2$.

Summary

Furon HP PFA 400 UC tubing was tested for cleanliness in 5% nitric acid in accordance per the SEMI C90-1015 requirement. The tubing passed the specification for iron extraction reading at $5 \mu\text{g}/\text{m}^2$.

References

¹ Balazs NanoAnalysis Air Liquide US L.P. 46409 Landing Parkway

SEMI C90-1015 Extraction Results

Test	Results ($\mu\text{g}/\text{m}^2$)	5% HNO ₃ Blank ($\mu\text{g}/\text{L}$)
Aluminum	0.36	0.028
Antimony	*	0
Arsenic	*	0
Barium	*	0
Beryllium	*	0
Boron	0.84	0
Cadmium	*	0
Calcium	8.1	0.085
Chromium	0.62	0
Cobalt	0.03	0
Copper	0.11	0
Gallium	*	0
Germanium	*	0
Gold	*	0
Iron	2.0	0
Lead	*	0
Lithium	*	0
Magnesium	0.23	0
Manganese	0.03	0
Molybdenum	4.6	0
Nickel	2.1	0
Potassium	0.7	0
Silver	*	0
Sodium	66	0.004
Strontium	*	0
Tin	*	0
Titanium	0.26	0
Vanadium	0.02	0
Zinc	0.6	0.004
Zirconium	*	0

* Indicates below the detection limit
 Detection Limit $0.001 \mu\text{g}/\text{m}^2$