

# Lab Test Result Show Heavy Metal and Lead Removal in Water Filter Device with KDF Process Media

## Lab Test Results from PatChem Laboratories

**Customer:** Systematix Inc.  
**Sample Date:** 3-23-90  
**Report Date:** 5-04-90  
**Sample ID:** 9003-1233B Di-Tech KDC+1.5  
**Subject:** One Systematix 9-3/4" filter cartridge was received for testing to determine its ability to remove heavy metals from water.  
**Method:** Reagent grade lead chloride was spiked into drinking water and run through the filter per manufacture and NSF specifications. The influent and effluent water were tested per *EPA Methods for Chemical Analysis of Water and Waste* (EPA-600/4-79-020).

Total Flow	Influent Water	Effluent Water	% Removal
1 Gallon	0.17 mg/L	< 0.01 mg/L	99.99%
5 Gallon	0.16 mg/L	< 0.01 mg/L	99.99%
10 Gallon	0.16 mg/L	< 0.01 mg/L	99.99%
50 Gallon	0.17 mg/L	< 0.01 mg/L	99.99%
100 Gallon	0.16 mg/L	< 0.01 mg/L	99.99%
250 Gallon	0.16 mg/L	< 0.01 mg/L	99.99%
500 Gallon	0.16 mg/L	< 0.01 mg/L	99.99%
600 Gallon	0.17 mg/L	< 0.01 mg/L	99.99%
750 Gallon	0.16 mg/L	< 0.01 mg/L	99.99%
1000 Gallon	0.16 mg/L	< 0.01 mg/L	99.99%
1250 Gallon	0.17 mg/L	< 0.01 mg/L	99.99%
1350 Gallon	0.16 mg/L	0.03 mg/L	81.25%
1425 Gallon	0.16 mg/L	0.08 mg/L	50.00%

**Initial flow:** 0.4 gallon/minute at 60 psi.  
**Cycle:** 10% on and 90% off for a maximum of 16 hours/day.  
**Comments:** The Systematix 9-3/4" cartridge filter reduced the level of lead pumped through the unit to a non-detectable level (<0.01mg/L) to 1250 gallons.

Respectfully Submitted, Pat Brueckner, Chemist

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