

## Charcoal canisters/Liquid Scintillation



Charcoal canisters/Liquid Scintillation and similar charcoal-containing devices are used for short-term tests lasting a minimum of 48 hours and up to 7 days. They contain a quantity of granular activated carbon that absorbs the radon gas entering the canister from the surrounding air. At the end of the test period, the canister is sealed and returned to the manufacturer for analysis, who then reports the results. For real estate transactions, the EPA requires that duplicate devices be exposed to confirm accuracy. We provide short-term charcoal testing and usually have measurement devices in stock.



**Electrostatic Radon Monitor:** A device known as the Electret Passive Environmental Radon Monitor (E-PERM) is used by many radon professionals to obtain fast results on radon concentration. E-PERM is a passive integrating radon detection system consisting of a charged Teflon disk (electret), an open-faced ionization chamber, a voltage reader, and a data logger. After placing the electret in the chamber, an electrostatic field is established. Radon gas diffuses passively into the chamber. The Alpha particles emitted from the decay of radon ionize the air molecules. These ions are attracted to the charged surface of the electret, thus reducing the initial charge of the electret. The initial and the final voltages are measured using the

voltage reader. The rate of change of the charge is proportional to the concentration of radon in the test area.

[http://radelec.com/index.php?option=com\\_content&task=section&id=8&Itemid=31](http://radelec.com/index.php?option=com_content&task=section&id=8&Itemid=31)

### Continuous Monitor



RS300



RS800

A continuous monitor is a measurement device that can actively interpret the levels of radon in the room. It provides hourly readings and gives an average at the end of the testing period. If the monitor can get hourly readings, one device can be used to substitute for the duplicate tests required for passive devices. These devices are quite expensive and can't be replaced with DIY type detectors now available on the market. Many of these monitors can also measure temperature, relative humidity, whether it is receiving AC power, or if it is moved. At the end of the testing period the results can be downloaded immediately, reducing the turnaround time of reports.



### Water

Radon gas can dissolve in groundwater and later be released into the air during such normal household activities as showering, dishwashing, and doing laundry. Compared to radon entering through the soil, radon entering through water will in most cases be a small source of risk, however the risk does exist. If you [measure radon](#) in the air in your home and find a radon

problem and your water comes from a well, it is advisable to conduct a radon water test. It takes about 10,000 pCi/L of radon in water to raise the radon in indoor air by 1 pCi/L

<http://www.prolabinc.com/radon-in-water.asp>