

Understanding NSF Ratings

NSF is a not-for-profit corporation founded in 1944 to promote good sanitation. Its main business is to bring together experts in public health, manufacturing, and sanitation from government, industry, academia and the public to develop and administer performance standards for products which have some impact on sanitation and public health. NSF maintains state-of-the-art laboratories where products can be tested according to the set standards.

Manufacturers voluntarily submit products for evaluation; if they pass the tests, they are “Listed” and certain tested claims are “Certified” and the products are authorized to display the NSF seal on labels and literature. Although non-governmental, NSF does have some official status as the lead agency for the testing and approval of both the chemicals used in water treatment and the materials of construction used in drinking water systems, under contract to the U.S. Environmental Protection Agency.

NSF Standards are recognized by the American National Standards Institute and the equivalent organization in the European Community, the Dutch Council for Certification (RvC). Public Health Officials worldwide can take confidence from the knowledge that people like themselves have written and approved these standards, and NSF’s reputation for thoroughness, independence and credibility has made it one of the most trusted public agencies in the world. NSF has also received the distinction of being appointed a Registrar for the International Standards Organization (ISO).

There are two NSF Standards for “Drinking Water Treatment Units”: Standard 42 for Aesthetic Effects and Standard 53 for Health Effects. A water filter which is “NSF-Listed”, or which has claims which are “NSF Certified” is one which:

- ❖ Is thoughtfully designed and carefully constructed
- ❖ Using established water treatment media and methods
- ❖ Using materials of construction which are tested and documented to be appropriate for potable water use
- ❖ Is tested and verified to conform to minimum standards of mechanical and hydraulic strength
- ❖ Is tested and verified to conform to minimum standards of hydraulic functioning (minimum flow rate, maximum initial pressure drop, reasonable freedom from channeling and dumping)
- ❖ Is adequately and truthfully labeled and advertised
- ❖ Is routinely re-tested, and its manufacturing procedures, documentation and facilities inspected/audited annually

Read the fine print

Please note that it is important to read the small print when evaluating a products certification. There are various classes to consider, and various contaminant removals to consider.

Just because a filter is certified to Std. 53 doesn’t mean it is for every one of the reductions listed below; it may only be for one or two. Make sure the reduction you require is specifically listed, i.e. Std. 53 for Cyst, turbidity, lead and asbestos reduction.

Standard 53 - Health Effects

(Pass / Fail criteria - no gradations or class distinction)

Cyst Reduction: 99.95% reduction of particles in the 3-4 micron range

Turbidity Reduction: Over 90% reduction of 10 - 12 units of turbidity in water

Lead Reduction: Minimum 90% reduction of 150 ppb lead to 15 ppb or less, at both high and low pH levels

Asbestos Reduction: 99% reduction of fibres exceeding 10 micrometers

Chemical Reduction: Usually 95% reduction of severe pollution levels to the MCL or lower, for the unit’s entire rated capacity

Standard 42 - Aesthetic Effects

Taste & Odor and Chlorine Reduction

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|-----------|---|
| Class I | - At least 75% reduction (highly effective) |
| Class II | - 50 to 75% reduction (somewhat effective) |
| Class III | - 25 to 50% reduction (least effective) |

Particulate Reduction (at least 85% of particles are removed)

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|-----------|---|
| Class I | - 0.5 to 1 micron (SUB-MICRON) |
| Class II | - 1 to 5 microns (most bacteria & one-celled algae) |
| Class III | - 5 to 15 microns (most protozoa, pollen, silt) |
| Class IV | - 15 to 30 microns (FINE...mold spores, rust particles) |
| Class V | - 30 to 50 microns (barely visible root hairs) |
| Class VI | - over 50 microns (sand, leaf fragments, insect parts) |

For more information on NSF listings, please visit www.nsf.org or call us at 1-888-Danamark and ask for technical support ext. 235, or email us at technicalsupport@danamark.com