



December 6, 2013

WATER QUALITY ASSOCIATION  
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Re: Description: WATER TREATMENT DEVICE - ACTIVATED CARBON  
Manufacturer: PROTECT PLUS LLC  
Product Name: DUPONT QUICK TWIST 3-STAGE DRINKING WATER FILTER SYSTEM (POU)  
Model Number(s): WFQT390005 USING THE WFQTC70001 AND WFQTC90001 CARTRIDGES (POU)  
Product File No: 20130335

The specifications and/or plans for this plumbing product have been reviewed and determined to be in compliance with chapters SPS 382 through 384, Wisconsin Administrative Code, and Chapters 145 and 160, Wisconsin Statutes.

The Department hereby issues an approval based on the Wisconsin Statutes and the Wisconsin Administrative Code. This approval is valid until the end of May 2018.

This approval supersedes the approval issued on May 10, 2013 under product file number 20120394.

This approval is contingent upon compliance with the following stipulation(s):

- This device has undergone sufficient testing to document the product's ability to reduce only those contaminants and/or substances as specified in this approval letter when the product is installed and maintained in strict accordance with the manufacturer's published instructions.
- Where the Department of Natural Resources (DNR) has jurisdiction, a written approval may be required prior to installation of this product in a water supply system to reduce the concentration of a contaminant that exceeds the primary drinking water standards contained in ch. NR 809, Wis. Admin. Code, the enforcement standards contained in ch. NR 140, Wis. Admin. Code, or for a water supply system that is subject to a written advisory opinion by the DNR. For more information contact the DNR Section of Private Water Systems, P.O. Box 7921, Madison, WI 53707, telephone (608) 267-9787.
- If this approved device is modified or additional assertions of function or performance are made, then this approval shall be considered null and void, unless the change is submitted to the department for review and the approval is reaffirmed.
- If the treatment components of this device (e.g., replacement cartridge) are replaced with anything other than those originally approved for use with this device, then this approval shall immediately be considered null and void.
- This device will only reduce the concentration of volatile organic chemicals at water outlets that are served by the devices. There are dermal (skin) absorption and inhalation exposure risks associated with volatile organic chemicals. Therefore, using a point-of-use device such as this will not protect all routes of potential exposure. Potentially hazardous exposures to volatile organic chemicals will remain possible at unprotected outlets, particularly hot water outlets (e.g. bathing, showering, clothes washing or dish washing).

If, by way of reputable water analyses, a water supply is known to contain unsafe levels of volatile organic chemicals, then all the water entering the residence must be treated at the point-of-entry using an approved water treatment device to address all potential routes of exposure.

- This device will only reduce the concentration of bacteria, cysts and virus at water outlets that are served by the device. Therefore, using a point-of-use device such as this will not protect all routes of potential exposure. Potentially hazardous exposures to bacteria, cysts and virus will remain possible at unprotected outlets.

If, by way of reputable water analyses, a water supply is known to contain pathogenic bacteria, cysts or virus, then all the water entering the residence must be treated at the point-of-entry, using an approved water treatment device, to address all potential routes of exposure thereby providing a biologically safe water supply.

- Do not use this device with water that is known to be microbiologically unsafe, or of unknown quality, without adequate point-of-entry (i.e. whole house) disinfection before this device.
- This device is not intended for the treatment of water that has an obvious or intentional contamination source (e.g. a well known to be microbiologically unsafe, raw sewage), nor is this device intended to convert wastewater to drinking water.
- The use of this device for the purpose of treating water for consumption by infants should follow these important steps:
  1. If on a private water supply, then have the water tested by a reputable laboratory. Such testing should include, but is not necessarily limited to, nitrate and microbiological safety. If on a municipal water supply, then this information is already available in the form of a "Consumer Confidence Report" that can be requested from your water utility. Note that this device has not been tested or approved for nitrate reduction or approved as a stand-alone method of disinfection.
  2. Discuss the use of this device with your child's physician.

Based on testing data submitted to and reviewed by the department, this approval recognizes that this plumbing product will reduce the concentration of contaminants as specified on pages 1 through 4 of this letter.

**HEALTH EFFECTING ORGANIC CONTAMINANT REDUCTION CAPABILITIES  
 PRODUCT FILE NUMBER 20130335  
 TABLE 1 OF 4**

**Flow Rate:** 3.8 liters per minute (lpm) [1.0 gallon per minute (gpm)]  
**Capacity:** 3,785 liters (l) [1,000 gallons (gals.)]

Tested Contaminant	Influent Challenge (µg/l) <sup>1</sup>
Atrazine	9 ± 10%
Lindane	2 ± 10%

**Other Conditions:** the contaminant reduction performance capabilities displayed for Table 1 of 4 were verified by testing conducted in accordance with NSF *International* Standard 53. To qualify for Atrazine reduction, the device must reduced the influent challenge concentrations such that all effluent concentrations are ≤ 3 µg/l. To qualify for Lindane reduction, the device must reduce the influent challenge concentrations such that all effluent concentrations are ≤ 0.2 µg/l.

<sup>1</sup> = micrograms per liter (µg/l) are equivalent to parts per billion (ppb)  
 ± = plus or minus

≤ = less than or equal to

**HEALTH EFFECTING INORGANIC CONTAMINANT REDUCTION CAPABILITIES  
 PRODUCT FILE NUMBER 20130335  
 TABLE 2 OF 4**

**Flow Rate:** 3.8 lpm (1.0 gpm)  
**Capacity:** 3,785 l (1,000 gals.)

Tested Contaminant	Influent Challenge Concentration (mg/l) <sup>1</sup>
Lead (Pb <sup>+2</sup> ) <sup>2</sup>	0.15 ± 10%

**Other Conditions:** the contaminant reduction performance capabilities displayed for Table 2 of 4 were verified by testing conducted in accordance with NSF *International* Standard 53. To qualify for lead reduction, the device must reduce the influent challenge concentrations such that all effluent concentrations are ≤ 0.010 mg/l.

<sup>1</sup> = milligrams per liter (mg/l) are equivalent to parts per million (ppm)  
 ≤ = less than or equal to

<sup>2</sup> = metals are tested at pH 6.5 and pH 8.5  
 ± = plus or minus

**HEALTH EFFECTING BIOLOGICAL CONTAMINANT REDUCTION CAPABILITIES  
 PRODUCT FILE NUMBER 20130335  
 TABLE 3 OF 4**

**Flow Rate:** 3.8 lpm (1.0 gpm)  
**Capacity:** 3,785 l (1,000 gals.) but dependent on the type and quantity of particulate matter present in the influent water; the need for maintenance may be indicated by a significant decrease in flow rate.

Tested Contaminant	Avg. Influent Challenge
Bacteria ( <i>Raoultella terrigena</i> , ATCC 33257)	10 <sup>8</sup> cfu/100 l
Cysts/Oocysts <sup>1</sup>	≥ 5.0 x 10 <sup>4</sup> #/ml
Virus (MS-2 Coliphage, ATCC 15597-B1)	10 <sup>7</sup> pfu/l

**Other Conditions:** The bacteria and virus reduction performance capabilities displayed for Table 3 of 4 were verified by testing conducted in accordance a specialized/original testing protocol entitled “Microbial reduction by the WaterPurifier filtration modules from Pentair Filtrix” [sic] which is based on the NSF P-231 testing protocol. The bacteria and virus reduction performance testing was conducted by Vitens Laboratory, Sneekertrekweg 61, 8912 AA Leeuwarden, P.O. Box 1090, 8200 BB Lelystad, the Netherlands. To qualify for bacteria reduction under the Vitens Laboratory protocol, the device must reduce the influent bacteria challenge concentrations by ≥ 99.9999% (6-log reduction) at each sample point.<sup>2</sup> To qualify for virus reduction, under the Vitens protocol, the device must reduce the influent challenge concentrations by ≥ 99.99% (4-log reduction) at each sample point. The cyst/oocyst reduction performance capabilities displayed for Table 3 of 4 were verified by testing conducted in accordance with NSF Standard 53. To qualify for cyst/oocyst reduction, the device must reduce the influent challenge concentrations by ≥ 99.95% (3.5-log reduction) at each sample point.

<sup>1</sup> = the specific organisms covered under this testing protocol include cryptosporidium parvum, entamoeba histolytica, giardia lamblia and toxoplasma gondii

<sup>2</sup> = test results submitted to this department indicated on day 2 of the test two bacterial challenge effluent samples did not meet the minimum 99.9999% (i.e. 6-log) reduction requirement. Vitens Laboratory attributed this to a number of possible testing “anomalies.” Because this device is not approved as a stand-alone means of disinfection, together with the technical rationale provided by Vitens Laboratory accounting for the apparent failure, the test data was accepted.

≥ = greater than or equal to  
 pfu/l = plaque forming units per liter

#/ml = particles per milliliter  
 cfu/100 l = colony forming units per 100 milliliter

**AESTHETIC CONTAMINANT REDUCTION CAPABILITIES**  
**PRODUCT FILE NUMBER 20130335**  
**TABLE 4 OF 4**

**Flow Rate:** 3.8 lpm (1.0 gpm)  
**Capacity:** 3,785 l (1,000 gals.). For particulate reduction, the capacity is dependent on the type and quantity of particulate matter present in the influent water; the need for maintenance may be indicated by a significant decrease in flow rate.

Tested Contaminant	Influent Challenge (mg/l) <sup>*,1</sup>
Chlorine (free)	2.0 ± 10%
Particulates (0.5 to < 1.0 µm)	1.0 x 10 <sup>4</sup> #/ml

**Other Conditions:** the contaminant reduction performance capabilities displayed for Table 4 of 4 were verified by testing conducted in accordance with NSF *International* Standard 42. . To qualify for free chlorine reduction, the device must reduce the influent challenge concentrations by ≥ 50%; meeting the free chlorine reduction requirements also qualifies the device for the reduction of aesthetic, organic, taste and odor reduction (e.g. geosmin, methylisoborneol); this does not include hydrogen sulfide. To qualify for particulate reduction (Class 1), the device must reduce the influent challenge concentrations by ≥ 85%.

1 = milligrams per liter (mg/l) are equivalent to parts per million (ppm)

\* = unless otherwise specified

< = less than

µm = micrometers

#/ml = particles per milliliter

≥ = greater than or equal to

± = plus or minus

This device was tested under controlled laboratory, or field, conditions. The actual performance of this device for a specific end use installation will vary from the tested conditions based on local factors such as water pressure, water temperature and water chemistry.

The department is in no way endorsing this product or any advertising, and is not responsible for any situation which may result from its use.

Sincerely,

Glen W. Schlueter  
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