

# 405 D Series “Dual Purpose”

*Removes Particulate,  
Detects Phase Separation & Water Sensing*

**Patented**



## 40510D

Detects and Reacts to Phase Separation in  
Ethanol Blended Fuels  
Senses Water in Neat Gasoline

### Benefits

- PetroClear® model 40510D is a particulate removing, water sensing and phase separation detecting spin-on filter designed to remove particulate from neat gasoline or Ethanol blended gasoline.
- PetroClear® model 40510D is a particulate removing, phase separation and water sensing spin-on filter. This filter is designed to sense water, both free and emulsified, and slow flow as an indicator of the presence of water in neat gasoline. This filter is also designed to detect and react to phase separation. Slow flow is an indicator of the presence of phase separation in Ethanol blended gasoline.
- PetroClear® model 40510D filter offers efficient 10 micron (nominal) particulate removal, and senses both free and emulsified water in neat gasoline and detects and reacts to phase separation should it occur, significantly reducing the flow.
- Textured paint coating helps ensure a simple, mess-free installation and removal process.
- UL® recognized
- This patented dual filter from Champion Laboratories, Inc. protects during the transition from neat gasoline to ethanol blends without changing filters.

**PetroClear® Filters are NOT to be  
used in Aviation Fuel Applications!**

FOR DISPOSAL INFORMATION PLEASE CONTACT YOUR NEAREST EPA OFFICE.

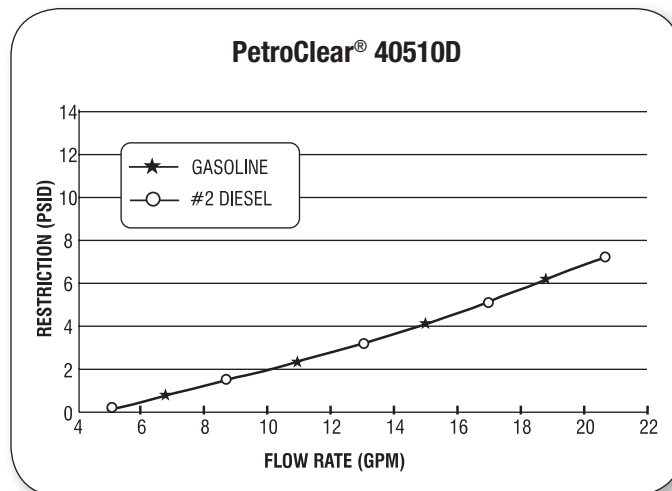
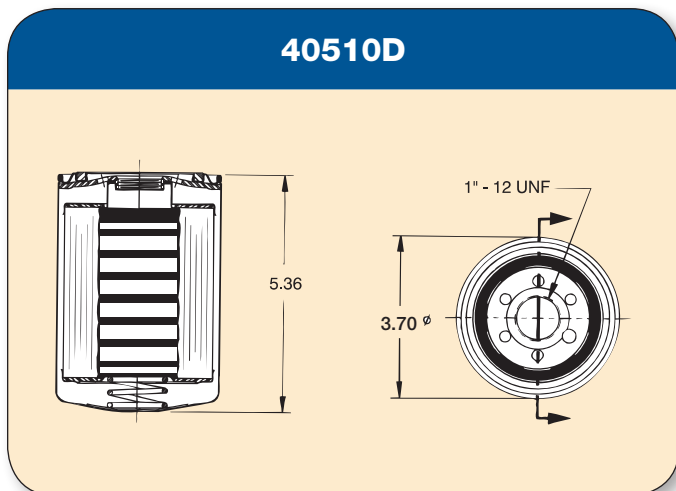
### Specifications

- The PetroClear® model 40510D utilizes a 10 micron (nominal) cellulose media to remove particulate from gasolines plus water sensing in neat gasoline and phase separation detecting capabilities for Ethanol blended gasoline. Removes particulate 10 microns (nominal) or larger. It utilizes a super absorbent media for sensing water in neat gasoline and a chemical core assembly to detect and react to phase separation in Ethanol blended fuel.
- Once the PetroClear® model 40510D has absorbed 5.9 ounces (175 mil) of water from neat gasoline, flow will be noticeably slow.
- The chemical center core assembly detects and reacts to phase separation and significantly restricts flow through filters.
- PetroClear® model 40510D “Dual Purpose” utilizes a standard 1" – 12 UNF mounting thread ref. (3/4" flow) required for most spin-on filter Adapters used in Gilbarco, Wayne, Bennet, Tokheim and other major manufacturers' dispensers, as well as with Adapters used in the aftermarket.
- The maximum flow rate for PetroClear® model 40510D is 25 gpm (94.6 lpm). Maximum operating pressure is 50 psid (3.4 bar). Collapse pressure is 150 psid (10.3 bar). Maximum operating temperature is 250°F (139°C).
- Adapters are available for model 40510D in aluminum and cast iron. These single Adapters are available in both 3/4" and 1" NPT and BSP inlet/outlet threads.

**NOTE:** If you experience frequent filter changes, it is recommended that you have fuel samples analyzed to determine the source of contamination, such as water, dirt, rust, bacteria, phase separation, etc.

# 40510D “Dual Purpose”

## Detects Phase Separation & Water Sensing



Model	40510D
Filter Type	Spin-On
Media Type	*Cellulose with Super Absorbent Media and Chemical Core
Micron Rating	10 Micron (nominal)
Diameter	3.70"
Height	5.36"
Mounting Thread	1" – 12 UNF
Flow Rate	25 gpm (94.6 lpm)
Flow	3/4" flow
Shell Thickness	0.020
Gasket Material	Buna N
Collapse (Min.)	150 psid (10.3 bar)
Burst (Min.)	250 psi (17.2 bar)
Max. Operating Temp.	250°F (139°C)
Min. Operating Temp.	-20°F (-28.9°C)

\*Particulate Removing, Water Sensing and Chemical Core Detects Phase Separation

Catalog	Description
<b>Adapters Available</b> . . . . . 0.75 N1-12 . . . . .	3/4" NPT Inlet/Outlet Ports, 1" – 12 UNF (cast iron)
. . . . . 0.75 N1-12A . . . . .	3/4" NPT Inlet/Outlet Ports, 1" – 12 UNF (aluminum)
. . . . . 1.00 N1-12 . . . . .	1" NPT Inlet/Outlet Ports, 1" – 12 UNF (cast iron)
. . . . . 1.00 N1-12A . . . . .	1" NPT Inlet/Outlet Ports, 1" – 12 UNF (aluminum)
. . . . . 0.75 B1-12 . . . . .	3/4" BSP Inlet/Outlet Ports, 1" – 12 UNF (aluminum)
. . . . . 1.00 B1-12 . . . . .	1" BSP Inlet/Outlet Ports, 1" – 12 UNF (aluminum)