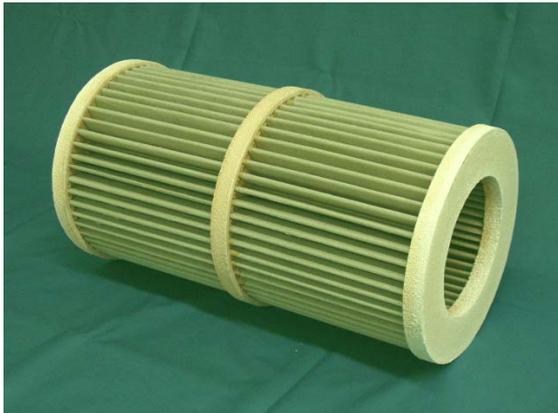


Ultra-Lite Diesel Particulate Filter Cartridge ***for Reduced Regeneration Time and Fuel Consumption***

Cartridge Performance

- Ceramic fiber media has tested endurance with 100's of regens at 600°C
- Regeneration time is less than 5 minutes
- 95+% PM removal
- Canning is compression of end plates to up to 25,000 lbs.
- Canning does not require insulation wraps or welding
- Catalyst can be applied directly to the cartridge without a washcoat



Cartridge Description

- Weight for a 6 to 10-liter engine = 7 lbs.
- Backpressure = 1/5th wall-flow filters
- Size = 8" diameter x 17" long



Ultra-Lite Filter Cartridge Advantages

Fuel Economy – Engine backpressure of the pleated cartridge is 1/5th that of competitive systems. Potential to lower fuel penalty with higher ash loading.

Regeneration Time – Thermal mass (weight) of the Ultra-Lite Cartridge is 1/6th that of SiC wall-flow DPF's. The ICS filter regenerates in 1/4th the time of cordierite and 1/6th the time of silicon carbide.

Heat Transfer – Soot combustion heat in the 0.070” thick media is immediately transferred to exhaust. High soot loadings do not cause material failures due to thermal excursions.

Catalysts – Catalysts can be directly applied to the fibers without a wash coat. A manufacturing step is removed - no reduction in porosity (or increased pressure drop).