



# **DPF FILTER FOR CLEANER AIR**

**State-of-the-art silicon carbide diesel particulate filters (DPF) for a variety of applications.**



## Market-Proven DPF Filters

**State-of-the-art silicon carbide (SiC) diesel particulate filters (DPF) for a variety of applications.**

LiqTech lives and breathes Silicon Carbide, and the material is at the core of everything we do. This enables us to provide state-of-the-art silicon carbide (SiC) DPF auto filters for various applications.

The optimized coatability property of the LiqTech DPF filter will aid continuous soot combustions, which will maintain the back pressure low by reducing emissions by up to 99.96 %.

Based on the requirements, e.g., durability, coatability, back pressure, service interval, and thermal regeneration strategy, we will customize the silicon carbide DPF material for optimal performance in the specific application.

In the retrofit market, DPF systems providers are challenged by legislative forces to limit the increase of NO<sub>2</sub> from DPF systems. LiqTech provides NO<sub>2</sub> compliant catalyzed diesel particulate filters (cDPF) for both passive and active systems.

For the 500 kW engines and industrial applications, we can deliver modular square elements in sleeving for easy implementation in your system. Based on the feedstock and gas characteristics, we will make our recommendations for coating on the particulate filter to control emissions.

# Superior Ceramic Filters

## FEATURES & BENEFITS

- ✓ State-of-the-art silicon carbide (SiC) diesel particulate filters (DPF) for a variety of applications
- ✓ Reduces emissions by up to 99.96%
- ✓ Customized silicon carbide material for optimal performance in the specific application
- ✓ Outstanding durability, coatability, back pressure, service interval, and temperature resilience
- ✓ Provides NO<sub>2</sub> compliant catalyzed diesel particulate filters (cDPF) for both passive and active systems
- ✓ Delivering modular square elements in sleeving for easy implementation in your system

## APPLICATION AREAS

- ✓ Automotive OEM
- ✓ Automotive aftermarket
- ✓ Retrofit
- ✓ Genset
- ✓ Marine
- ✓ Locomotive
- ✓ Others



## Long-Term Experience

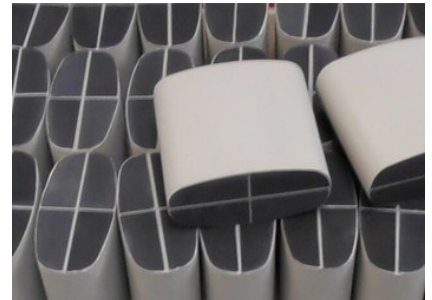
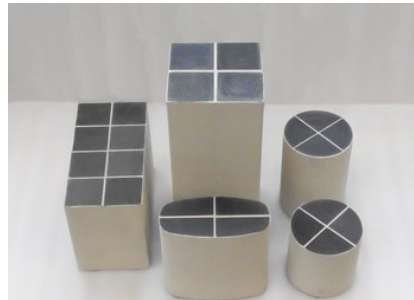
20+

years of experience in the filtration industry

2,500,000+

large vehicles retrofitted with our Diesel Particulate Filters

## Available In Different Sizes...



# Silicon Carbide Filter Specification – 90 CPSI

Substrate composition of recrystallized SiC.

## GEOMETRY

Cell Density [CPSI]	90
Channels Geometry	Square
Wall Thickness [mm]	0.76
Porosity [%]	43 +/- 2
Mean Pore Size [ $\mu\text{m}$ ]	15 +/- 2
Filtration Surface per liter [ $\text{m}^2$ ]	0.54
Open Frontal Area [%]	25.6

## PHYSICAL CHARACTERISTICS

Max. Temperature [ $^{\circ}\text{C}$ ]	1200 $^{\circ}\text{C}$
Wall Fracture Strength [Mpa]	>25
Compressing Strength [Mpa]	4.9
Thermal Conductivity @ 25 $^{\circ}\text{C}$ [W/m.K]	40
Thermal Conductivity @ 650 $^{\circ}\text{C}$ [W/m.K]	>15

## OTHERS

Filtration Efficiency(with and without soot load) [%]	Min 85% w/ soot >95%
VERT Approval [Yes/No]	Yes
Other Approvals (What?)	TÜV, CARB
Washcoat/PGM [Yes/No]	Yes/yes
Max. Soot Load [g/l]	15

# Silicon Carbide Filter Specifications – 150 CPSI

Substrate composition of recrystallized SiC.

## GEOMETRY

Cell Density [CPSI]	150
Channels Geometry	Square
Wall Thickness [mm]	0.51
Porosity [%]	43 +/- 2
Mean Pore Size [ $\mu\text{m}$ ]	15 +/- 2
Filtration Surface per liter [ $\text{m}^2$ ]	0.74
Open Frontal Area [%]	28.8

## PHYSICAL CHARACTERISTICS

Max. Temperature [ $^{\circ}\text{C}$ ]	1200 $^{\circ}\text{C}$
Wall Fracture Strength [Mpa]	>25
Compressing Strength [Mpa]	4.9
Thermal Conductivity @ 25 $^{\circ}\text{C}$ [W/m.K]	40
Thermal Conductivity @ 650 $^{\circ}\text{C}$ [W/m.K]	>15

## OTHERS

Filtration Efficiency(with and without soot load) [%]	Min 85% w/ soot >99.98% PM
VERT Approval [Yes/No]	Yes
Other Approvals (What?)	TÜV, CARB
Washcoat/PGM [Yes/No]	Yes/yes
Max. Soot Load [g/l]	12

# Silicon Carbide Filter Specifications – 200 CPSI

Substrate composition of recrystallized SiC.

## GEOMETRY

Cell Density [CPSI]	Nominal 180 (200)
Channels Geometry	Square
Wall Thickness [mm]	0.48
Porosity [%]	43 +/- 2
Mean Pore Size [ $\mu\text{m}$ ]	15 +/- 2
Filtration Surface per liter [ $\text{m}^2$ ]	0.80
Open Frontal Area [%]	298

## PHYSICAL CHARACTERISTICS

Max. Temperature [ $^{\circ}\text{C}$ ]	1200 $^{\circ}\text{C}$
Wall Fracture Strength [Mpa]	>25
Compressing Strength [Mpa]	4.9
Thermal Conductivity @ 25 $^{\circ}\text{C}$ [W/m.K]	40
Thermal Conductivity @ 650 $^{\circ}\text{C}$ [W/m.K]	>15

## OTHERS

Filtration Efficiency(with and without soot load) [%]	Min 85% w/ soot >99.98% PM
VERT Approval [Yes/No]	Yes
Other Approvals (What?)	TÜV, CARB
Washcoat/PGM [Yes/No]	Yes/yes
Max. Soot Load [g/l]	10



# We are ready to help you



**Brian Ambo Petersen**

Sales Manager Emission Tech

Phone: +45 6040 6815

bap@liqtech.com

**LiqTech**

Phone: +45 4498 6000

info@liqtech.com

<https://liqtech.com/>