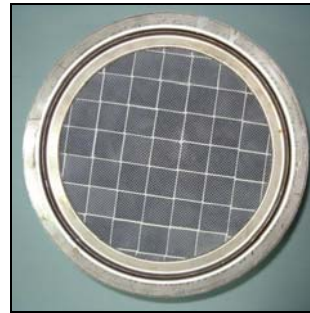


Silicon Carbide DPF

- The newly developed of SIC (Silicon Carbide) substrate for the emission control of diesel exhaust, has been widely used to replace the traditional usage of Cordierite DPF. The application of SIC is the major recent breakthrough of emission control technology. Lots of technical advantage shown as below of DPF using SIC substrate including:

- Better filtration efficiency more than 99%.
- Higher thermal conductivity.
- More than 2-10 times mechanical strength.
- Higher heat resistance.
- Higher chemical stability.
- Higher thermal shock resistance.
- Double filter soot loading.



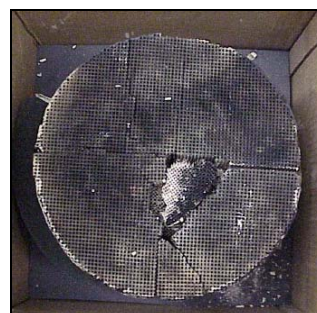
SIC (Silicon Carbide) DPF

- Taking advantage of higher thermal conductivity, mechanical strength and heat resistance, as well as segmented assembling method, the SIC made DPF is to withstand higher thermal stresses and can be flexible in production for supplying any shapes of filter.
- In addition, SIC-DPF has uniform pore structure because of well control of SIC raw materials and sintering process. This allows SIC-DPF to trap PM in consistent manner, thus enabling stable and safe filter regeneration. The incidents of thermal crack due to sudden change of exhaust temperature, and damage filter caused by filter over sooting and uncontrolled filter regeneration by using traditional Cordierite made DPF will not be found in SIC-DPF.
- Material of SIC (Silicon Carbide)

Mechanical property	SIC	Cordierite
Bending Strength kg/mm^2	3	1-1.25
Compression Strength kg/mm^2 A axial	6	0.85
Compression Strength kg/mm^2 B axial	7	0.11
Compression Strength kg/mm^2 C axial	1.5	0.11
Thermal conductivity cal/cm.s.c	0.076	0.0025
Thermal Expansion Coefficient	4	1
Heat Resistance $^{\circ}\text{C}$	2200	1430



Melt Filter



Cracked Filter