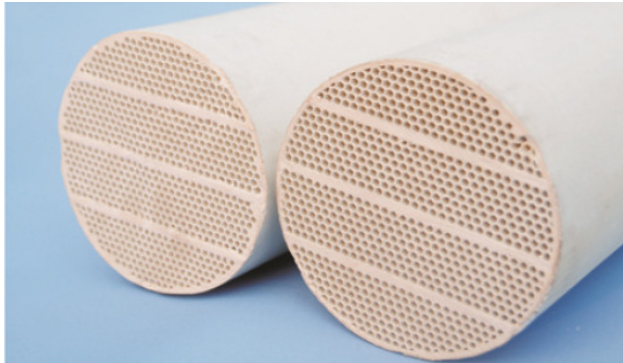


Ceramic Membrane

Principle



Ceramic membrane has the following advantages:
high flux, chemical resistance, long life time, easy cleaning, good flux recovery by backwash.

Application: Oily wastewater treatment, seawater desalination pre-treatment, effluent water recovery, oil purification, chemical purification, etc.



Pioneer Environmental Technology Pte Ltd

52 Tuas Avenue 9, Singapore 639193

Tel: +65-62102725 Fax: +65-68616919

HP: +65-90302293

Email: general@pioneerenv.com.sg

Website: www.pioneerenv.com.sg

Technical Parameters for Ceramic Membrane

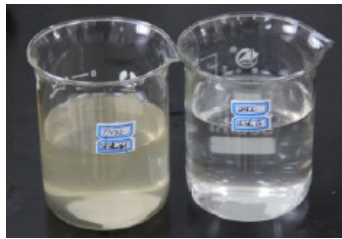
Model	Pore Size (nm)	External Diameter (mm)	Length (mm)	Holes	Filtration Area (m ²)	Flux (L/m ² H)	pH	Operation Pressure (mPa)	Highest Pressure (mPa)
PET-IMM-80-865	100	80	865	191	1.98	260-1100	1-14	0.1-0.3	0.5
PET-IMM-80-1016	100	80	1016	191	2.32	260-1100	1-14	0.1-0.3	0.5
PET-IMM-80-1160	100	80	1160	191	2.66	260-1100	1-14	0.1-0.3	0.5
PET-IMM-140-865	100	140	865	728	7.58	260-1100	1-14	0.1-0.3	0.5
PET-IMM-140-1016	100	140	1016	728	8.88	260-1100	1-14	0.1-0.3	0.5
PET-IMM-140-1160	100	140	1160	728	10.13	260-1100	1-14	0.1-0.3	0.5

Technical Performance for Ceramic Membrane

Parameters	Oil (ppm)	SS (ppm)	Turbidity (NTU)	Bacteria
Inlet Wastewater	< 2000	< 3000	< 1500	< 20000
Filtered Water	< 5	< 1	< 1	< 1000

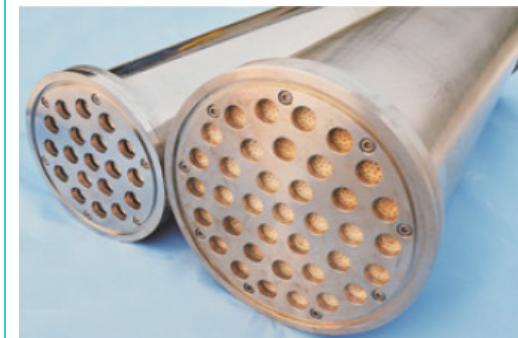
Electronic Wastewater after Coagulation and Ceramic Membrane Filtration

Parameter	Ni (ppm)	Cr ⁶⁺ (ppm)	Total Cr (ppm)	Cu (ppm)	Zn (ppm)	NH ₃ -N (ppm)	Total P (ppm)	COD (ppm)
Before Treatment	53.5	107.4	298.8	43.1	172.9	15.5	10.3	391.2
After Treatment	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	3	0.2	< 50



Oily Water (before and after)

Oily Water (central), After Filtration (left), Concentrated Water (right)



Full-scale Oily Water Treatment System

Car Washing Water Recycling System

Ceramic Membrane Module