

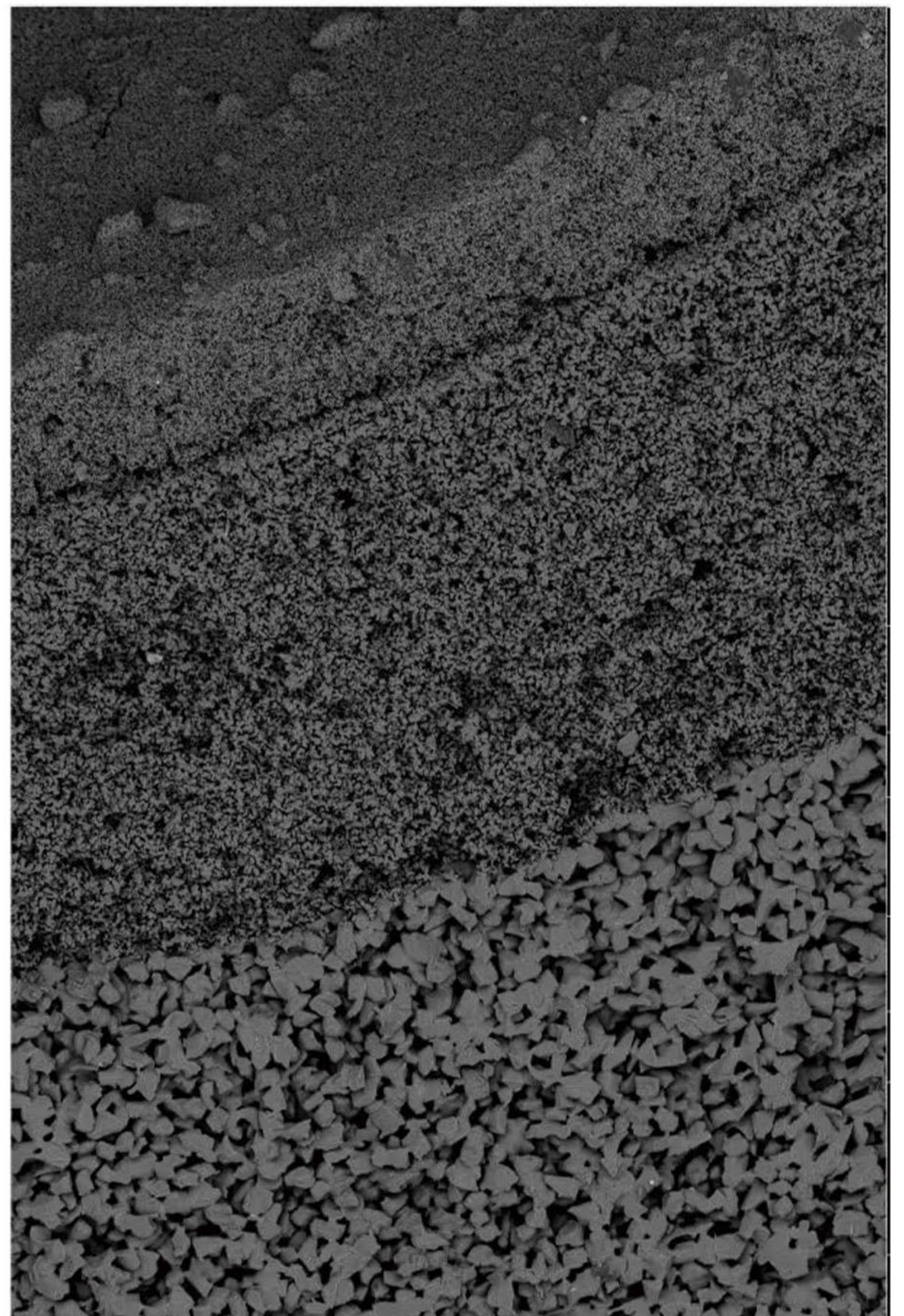
# SILICON CARBIDE FLAT SHEET MEMBRANE

The silicon carbide flat sheet membrane modules we design and produce are modular, expandable filtration units consisting of a glass fiber reinforced plastic shell and flat sheet ceramic membranes.

The membrane module integrates water production channels internally and can withstand high pressure. Our membrane modules have undergone CFD fluid mechanics simulations and actual testing to achieve the best performance of flat sheet ceramic membranes. Each standard membrane module contains 2 water production channels, with a maximum water production capacity of up to 1200LMH (9m/h). None of the shell and the components contains any metal, so it can be used in the harshest applications while extending its service life. Additionally, there is no need for surrounding frames or hose connections between membrane modules.

## Product Features and Advantages

- ★ The core material silicon carbide has good hydrophilicity, higher porosity, excellent cleaning recovery ability, and no fear of oil pollution;
- ★ High-throughput operation requires less filtration area and saves significant costs;
- ★ It has good anti-pollution performance, is resistant to water inlet fluctuations, and has stable long-term operating flux;
- ★ It has good chemical stability, acid and alkali resistance, strong oxidant resistance, high temperature resistance, organic dissolution resistance, good washability and easy recovery of flux after cleaning;
- ★ Suitable for seawater and other challenging applications without any corrosion risks;
- ★ Full modularity allows the number of membrane modules per membrane tower to be changed at any time to optimize project costs or increase future processing capacity;
- ★ The most compact design – no need to set up independent water production pipelines, the membrane system is highly integrated;
- ★ Competitive investment cost and excellent life cycle.



## Application Area

MBR Microbial Reactor

Membrane Chemical Reactor

Salt Chemical Brine Refining

High Standard Drinking  
Water Purification

## SiC Flat Sheet Membrane Main Parameters

Effective Filtering Area	0.177 m <sup>2</sup>
Base Material	SiC
Filtering Layer Material	SiC
Pore Size	100 nm
Dimensions	L600*W145*T6 mm
Operation Temperature	4-50 °C
pH Range	0-14
Maximum Negative Operation Pressure	-600 mbar
Maximum Backwash Pressure	1.2 bar
Cleaning Method	Backwash/Airwash/Spray/ Chemical cleaning

## SiC Flat Sheet Membrane Module Main Parameters

Dimensions	746*666.4*160 mm
Weight	44.8Kg
Housing Material	NORYL Resin30%Fiberglass Reinforced PPE/PS
Membrane Quantity	42
Distance Between Sheets	8 mm
Total Module Filtering Area	7.5m <sup>2</sup>
Maximun Flux	9 m /h
Maximun Negtive Pressure	-0.6bar
Maximun Positive(Backwash) Pressure	1.2bar
Operation Temperature	5-45 °C

