Different Material For Membrane Manufacturing



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ultrafiltration

Polymer	Properties & Applications in UF Membranes
Polyamides	Excellent chemical resistance, high mechanical strength; used for separating larger particles in water treatment, food processing.
Polyacrylonitriles	Good resistance to organic solvents; used in membranes for gas separation and water treatment.
Cellulose (Regenerated)	Biocompatible, good for low-pressure applications in food, beverage, pharmaceuticals, and wastewater treatment.
Cellulose Acetate	Provides excellent permeability and selectivity; widely used in water purification, dairy, and pharmaceutical industries.
Cellulose Triacetate	Exhibits good resistance to biological growth; used in potable water production, pharmaceuticals.
Aromatic Polyamides	High thermal and chemical stability; utilized in water treatment, desalination, and industrial filtration.
Poly(vinylidene fluoride) PVDF	Excellent chemical resistance, thermal stability; used in microfiltration and ultrafiltration for various applications.
Polysulfone	Combines high chemical resistance and mechanical strength; applied in separation processes in industries like biotechnology.
Polyacrylonitrile-poly(vinyl chloride) copolymers	Provides good thermal stability; used in gas separation, wastewater treatment.
Poly(ether sulfone) PES	High resistance to fouling, suitable for harsh chemical environments; used in water purification and medical applications.
Poly(vinyl alcohol)	Biodegradable, suitable for food packaging, pharmaceuticals, and wastewater treatment due to its biocompatibility.
Polypropylene	Offers good chemical resistance, used in microfiltration, food processing, and pharmaceutical applications.

reverse osmosis

Polymer	Properties & Applications in RO Membranes
Polyimides	High thermal stability, good chemical resistance; utilized in RO membranes for desalination, industrial water treatment.
Cellulose Acetate	Widely used in RO membranes for desalination, water purification due to its high permeability and excellent salt rejection.
Cellulose Acetate coated with Aromatic Polyamides	Improved chlorine resistance, increased rejection rates; used in RO membranes for water treatment.
Aromatic Polyamides	High selectivity, high salt rejection; used in RO membranes for seawater desalination and industrial wastewater treatment.
Polybenzimidazole (PBI)	Excellent chemical and thermal stability; applied in RO membranes for harsh environments, high-temperature water treatment.
Polyetherimide	High mechanical strength, chemical resistance; used in RO membranes for water purification, industrial applications.