

WHY CHOOSE HybSi® AR?

Reliability

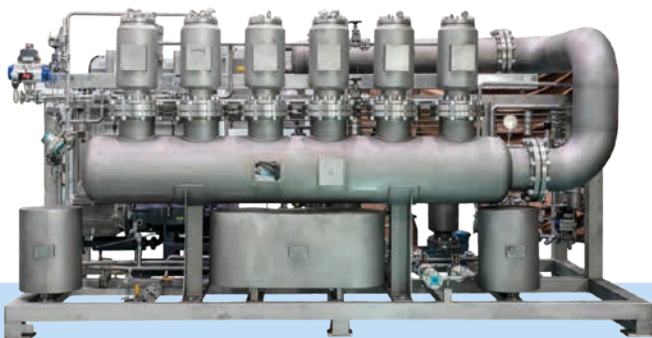
Count on HybSi® AR's consistent performance to meet your production demands, ensuring smooth operations and peace of mind.

Innovation

Stay ahead of competition by adopting cutting-edge membrane technology that redefines industry standards and sets new benchmarks for excellence.

Partnership

Benefit from our dedicated support and expertise. We are here to assist you every step of the way, from lab to pilot scale and from pilot to full scale operation.



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 PERVATECH®

HybSi® AR

Ceramic membrane technology for solvent recovery applications

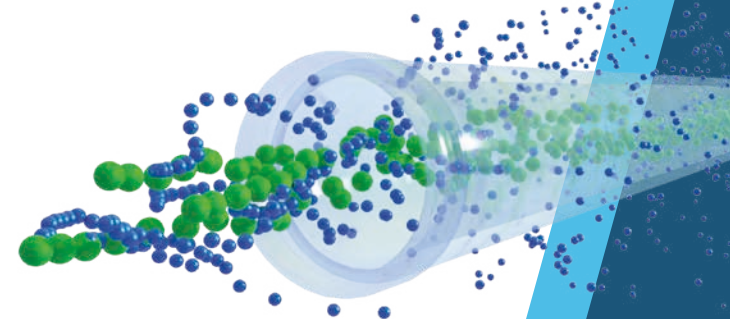
Contact us today!

Ready to transform your separation processes? Embrace the future with HybSi® AR. Unlock the full potential of your industry with HybSi® AR, the ceramic membrane that empowers your business. For inquiries, customized solutions and to explore the advantages of HybSi® AR in pervaporation, contact us at:

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 PERVATECH®

Industrial systems,
membranes and modules
for pervaporation
separation processes



INTRODUCING HybSi® AR - PERVAPORATION TECHNOLOGY



Pervaporation is a thermal based membrane separation technology. It is energy efficient and independent of vapour-liquid equilibria, which enables to break azeotropes in distillation processes. A hybrid process in combination with distillation gives opportunities for process intensification. This enables you to reduce your carbon footprint.

As Pervatech, we are proud to introduce HybSi® Acid Resistant (AR), our state-of-the-art ceramic membrane that will transform your business. With unmatched separation efficiency and superior chemical stability, HybSi® AR ensures closing of the solvent cycle, enabling a circular approach to how your process is operated. HybSi® AR is designed to improve your production processes, ensuring purity, efficiency, and cost effectiveness.



KEY FEATURES AND BENEFITS

- 1. Unmatched separation efficiency**
HybSi® AR's unique properties provide highly efficient and selective water removal, delivering pure solvents with unparalleled precision.
- 2. Superior chemical and thermal stability**
HybSi® AR's advanced new composition guarantees stability even in harsh acidic environments between pH 0.5 – 8, in pure water and organic solvents, and in salt-containing media. No more worries about material degradation, ensuring long-lasting performance and reliability up to 10 bars. Moreover, our advanced ceramic membrane has exceptional **thermal stability** and can withstand temperatures up to 150 °C.
- 3. Cost effectiveness**
Increase your operational efficiency and reduce production costs with HybSi® AR. Its exceptional performance leads to higher productivity and more economical use of resources, ultimately reducing your carbon footprint.
- 4. Environmentally friendly solution**
By minimizing waste and optimizing production, HybSi® AR reduces environmental impact, making your processes more sustainable. Experience up to **40% energy savings** compared to distillation.
- 5. Versatile applications**
From petrochemicals to pharmaceuticals, food & beverage to bio-based industry, HybSi® AR's adaptability to many solvents makes it ideal for a variety of industries. Experience seamless integration into your existing processes and open doors to new opportunities.

HybSi® AR DEHYDRATION APPLICATIONS

Alcohols

Ethanol
Propanol & IPA
Butanol & IBA
Pentanol
Benzyl alcohol

Aromatics

Benzene
Toluene
Xylene

Ketones

Acetone
Butanone (MEK)
Methyl isobutyl ketone

Organic acids

Acetic acid
Citric acid
Lactic acid
Propionic acid

Ethers

Methyl tert-butyl ether
Ethyl tert-butyl ether
Tetrahydro furan (THF)
2-methylTHF
Dioxane
Ethylene glycols

Aprotic solvents

Dimethylformamide
Dimethylacetamide
Dimethylsulfoxide
NMP

Ternary amines

Trimethylamine
Triethylamine
Tripropylamine
N,N-dimethylethylamine

Esters

Methyl acetate
Ethyl acetate
Butyl acetate
Ethyl butyrate

Chlorinated hydrocarbons

Dichloromethane
Perchloroethylene
Trichloroethylene
Dimethylformamide
Dimethylacetamide

Nitriles

Acetonitrile
Butyronitrile
Propionitrile

Others

MeOH-DMC separation

