

## Technical data & results

(Example results from inopor® technical report 04/2023)

Scouring	
Permeate flux	> 300 l/h
TSS	> 99,9%
Operation temperature	up to 90 °C
Temperature difference between feed and permeate	5 °C
ph value	will not be changed
Conductivity (µS/cm)	will not be changed

Dyeing	
Permeate flux	> 100 l/h
Dye rejection rate	> 98%
Operation temperature	> 80 °C
ph value	will not be changed
Conductivity (µS/cm)	will not be changed

## MicroTai pilot plant in operation



## Membranes

### Technical parameters

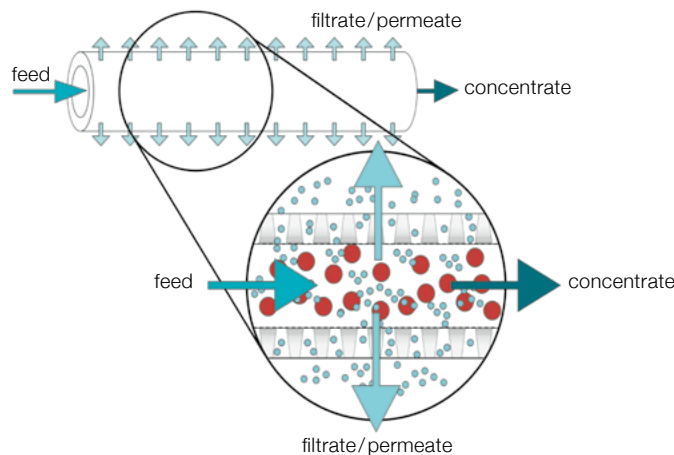
	Membrane material	Pore size	Cut-off	Porosity
Microfiltration inopor® micro	$\alpha\text{-Al}_2\text{O}_3$	1100 nm		40 – 55 %
		800 nm		
		600 nm		
		400 nm		
		200 nm		
		100 nm		
Ultrafiltration inopor® ultra	$\text{TiO}_2$	30 nm	100 kDa	30 – 40 %
		10 nm	20 kDa	
	$\text{ZrO}_2$	5 nm	8.5 kDa	
		3 nm	2 kDa	
Nanofiltration inopor® nano	$\text{TiO}_2$	1.0 nm	750 Da	
		0.9 nm	450 Da	
		LC 1	200 Da	

The information of this flyer is generally correct. However, no claim or guarantee can be made from its contents. Date: 2023-05-22



Recovery of texturing water in textile industry with ceramic inopor® ultra filtration membranes

### Function of the ceramic membranes



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**Rauschert**  
Your Challenge.  
Our Technology.

## Initial situation

The discharge of scouring water causes significant increase in COD (chemical oxygen demand) of processed wastewater.



## Objective of piloting

- Determine the level of filtration necessary to clean the scouring wastewater for reuse in the scouring machine
- Test if the quality of the filtered scouring water is adequate for reuse in the scouring process

## Results

High temperature permeate is reused on site which results in:

- Reduction of fresh water
- Energy saving
- Environment friendly production

## Advantages of ceramic inopor<sup>®</sup> membranes

- High chemical resistance
- Bio inert (e. g. against bacteria)
- High thermal resistance
- Good steam sterilisation
- Back flushing possible, high compressive strength
- No material degradation
- Optimal regeneration
- High permeate flux rates
- Can be stored dry after cleaning
- High resistance against abrasive particles
- High durability

## Applications in the textile industry

- Removal of spin finish and sizer
- Removal of dyeing agents
- Recycling of wastewater in the ATY process
- Separation of oil/water emulsions



**We welcome your enquiries!**

## Contact

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