

Price list for resin examinations

To test	by Method	Price
Standard price sets		
Standard analyses for cationic resins	<i>Includes: Basic tariff, Optical aspect; Kinetic properties (Colouring test), total capacities, water retention</i>	372,00 €
Standard analyses for anionic resins	<i>Includes: Basic tariff, Optical aspect; Kinetic properties (Colouring- and Crosscolouring test), total capacities (weak and strong base fractions), water retention</i>	453,00 €
Standard analyses for Mixed-bed-sample	<i>Separation of CAT and AN as well as individual analyses for both fractions (microscopical examination, total capacities, water retention, colouring)</i>	938,00 €
General	General	
General	Basic tariff, report <i>separately for each sample</i>	70,00 €
Optical aspect	Microscopical analyses	
Optical aspect	Microscopically <i>strongly recommended!</i>	87,00 €
Bead size distribution	Picture analysis <i>to be ordered only in combination with microscopical examination (Optical aspect)</i>	121,00 €
Total capacities	Total capacities by titration	
Total capacities	Weakly acidic, titration	182,00 €
Total capacities	Strongly acidic, titration	182,00 €
Total capacities	Strongly- or dual basic, titration	230,00 €
Total capacities	IDA/AMP selective resins	209,00 €
Total capacities	Total capacities according to DIN	
Total capacities	Weakly acidic, titration referring to DIN 54403	288,00 €
Total capacities	Strongly acidic, titration referring to DIN 54403	288,00 €
Total capacities	Strongly- or dual basic, titration referring to DIN 54402	369,00 €
Regeneration level	Regeneration level	
Regeneration level	Strongly acidic, as delivered, titration <i>supposing, that the sample was taken after regeneration and rinse</i>	74,00 €
Regeneration level	Strongly- or dual basic, as delivered, titration <i>supposing, that the sample was taken after regeneration and rinse</i>	124,00 €
Operating Capacity	Operating Capacity by column test	
Operating Capacity	WAC <i>OC from 3 cycles with constant ion offer; Rinse water consumption</i>	281,00 €
Operating Capacity	SAC <i>OC from 3 cycles with constant regeneration; Rinse water consumption</i>	281,00 €
Operating Capacity	WBA DBA <i>OC from 3 cycles with constant regeneration; Rinse water consumption</i>	281,00 €
Operating Capacity	SBA <i>OC from 3 cycles with constant regeneration; Rinse water consumption</i>	281,00 €

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Operating Capacity	MB <i>The mixed bed sample has to be regenerated. OC until 1/5/10 µS/cm</i>	172,00 €
Kinetik properties	Kinetic properties	
Kinetik properties	Colouring test after regeneration <i>to be ordered only in combination with microscopical examination (Optical aspect)</i>	33,00 €
Kinetik properties	Crosscolouring <i>to be ordered only in combination with microscopical examination (Optical aspect)</i>	33,00 €
Kinetik properties	Colouring after purification <i>to be ordered only in combination with special treatment/purification</i>	33,00 €
Microbiological Contamination	Colony forming Units <i>Bacteria, Yeast and Fungi with culture media-coated dip-slide</i>	82,00 €
Microbiological Contamination	Protein Content <i>identification of dead biological material</i>	82,00 €
Purification	Special treatments <i>it is advantageous, that the sample was taken after regeneration and rinse</i>	35,00 €
Contents in resin or eluate	Contents	
Contents in resin or eluate	COD photometric <i>including the resin special treatment</i>	55,00 €
Contents in resin or eluate	Silica (SiO ₂) photometric <i>including the resin special treatment</i>	66,00 €
Contents in resin or eluate	Fe photometric <i>including the resin special treatment</i>	59,00 €
Contents in resin or eluate	ICP-Screening <i>usually combined with a special treatment</i>	230,00 €
Mechanical stability	Mechanical parameters	
Mechanical stability	Destruction force and Elasticity	121,00 €
Mechanical stability	Osmotic Shock Test	191,00 €

Results are usually available within about 3...5 working days. Larger amounts of samples or special treatments may need a little more time.

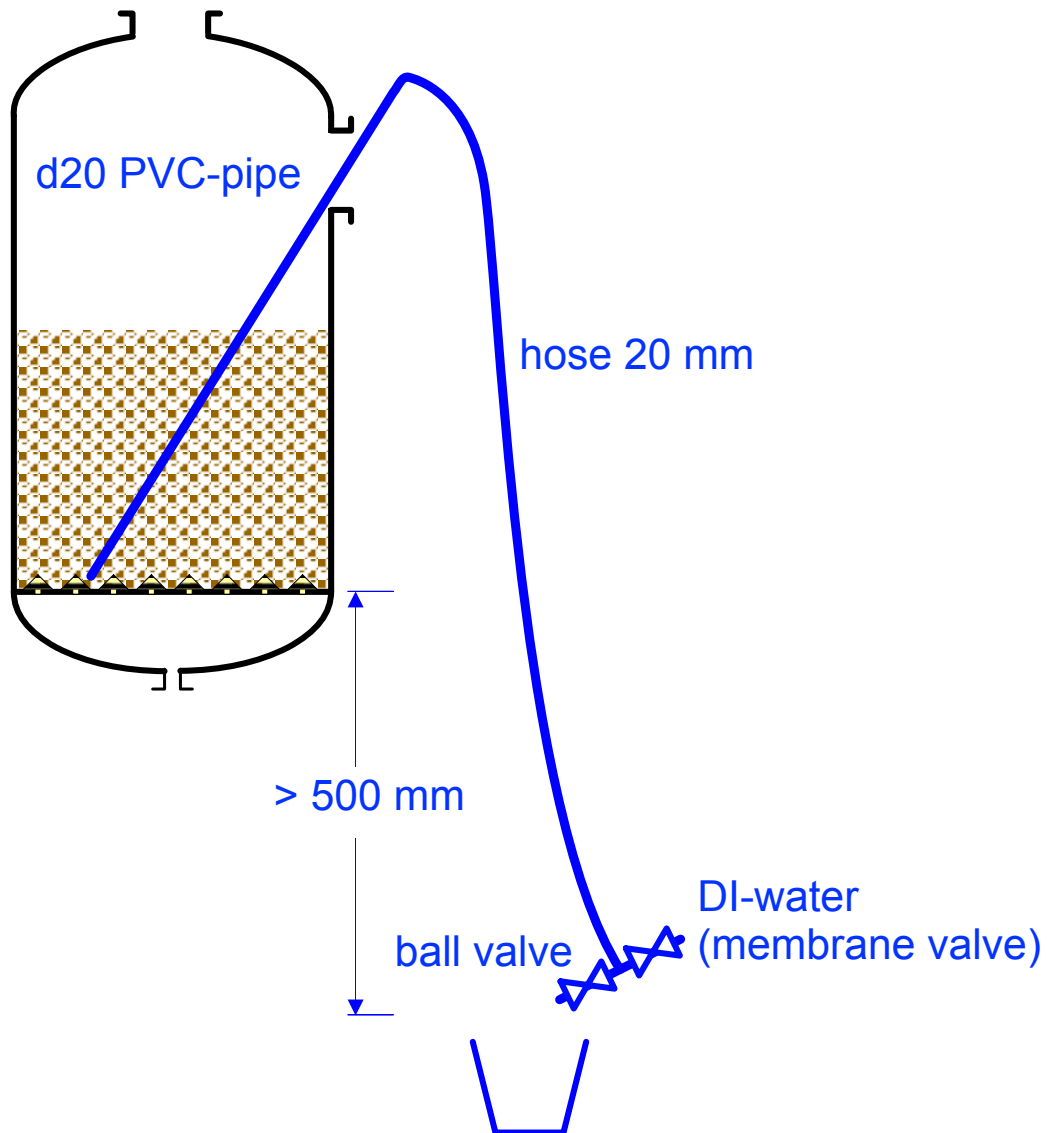
For each sample, a few hundred millilitres are sufficient. Please make sure that the sample containers (preferably wide neck jars) are air- and watertight, enabling us to determine the most accurate results possible.

For Operating Capacity tests and mixed bed samples we require a minimum resin quantity of 1 litre.

An express sample processing (24h/48h depending on analysis extent) is possible upon agreement. Therefore we charge a premium of 20..25 % on the total fee.

All prices are in Euro excl. VAT and apply per sample. Payment terms that exceed 30 days will increase the total amount by 2 % for each 30 days prolongation.

Method for resin sampling



(The resin bed can be covered with water)

1. step:

Move the pipe into the resin bed with DI water flowing slowly until contacting the nozzle plate

2. step:

Close DI-valve, open ball valve and at the same time (2nd person) lift the pipe for approx. 5...10 s upwards until only water flows