CitoVac gives you superior impregnation, carried out quickly and efficiently. Perfect for porous materials, such as specimens for failure analysis with cracks, porous casts and composites, electronic components, rocks minerals, ceramics and spray coatings.

CitoVac is extremely user-friendly, and is equipped with a spacious vacuum chamber.

Easy handling
- Handy inlet tube for trouble-free filling of the mounting cups, and no spilling
- Easy-to-read display and touch pad keys for user-friendly operation
- Transparent lid for a clear view during impregnation
- Disposable consumables for optimal safety and less cleaning

Room for many and/or large specimens
- Spacious vacuum chamber
- Practical mounting cup holder with room for up to 8 mounting cups (accessory)
Impregnation

Perfect impregnation of porous specimens requires that there is no air in the pores and cracks of the specimens when the impregnation material is applied. The only way to obtain this is to impregnate under vacuum. CitoVac ensures perfect impregnation of your specimens.

CitoVac is equipped with a large vacuum chamber and a user-friendly operational panel. The impregnation material (e.g. Struers EpoFix) is supplied through a disposable tube, and is quickly and efficiently distributed, without messy spilling, to the individual mounting cups.

CitoVac features

Handy inlet tube
CitoVac is designed for trouble-free filling of the mounting cups, and is operated without spilling of impregnation material in the vacuum chamber or outside on the cabinet. This is achieved by manually rotating the mounting cups on the turntable to the fixed inlet tube. The valve controlling the flow of the impregnation material is also easy to handle.

User-friendly operation
CitoVac is operated with a few touch pad keys. The display presents both set values and present vacuum and time. Display and touch pad are placed behind the chamber to secure that they will not be soiled with mounting material.

A clear view during impregnation
The transparent lid allows a clear view when filling the mounting cups in the vacuum chamber. Therefore the amount of impregnation material per cup can be controlled, which results in less waste of impregnation material.

Optimal safety and less cleaning
All consumables which have contact with the mounting material are disposable. This ensures the optimal safety for the user and reduces cleaning to a minimum.

A large vacuum chamber
With CitoVac many specimens can be impregnated at the same time. Using 30 mm / 1¼" mm dia. moulds 10 specimens can be mounted, using 40 mm / 1½" dia. moulds, 8 specimens can be mounted at the same time.

In addition, the large vacuum chamber allows also impregnating large specimens under vacuum. Thus, CitoVac can use a 200 mm / 8" dia. mounting cup to impregnate large samples.

Practical mounting cup holder
To make it fast and easy to handle many specimens, we have designed a mounting cup holder. The holder can be used with Struers mounting cups ≤ 30 mm/1¼" dia. (UnoForm) only, as the cups hang on their little ‘wings’.

Spacious vacuum chamber for large specimens.

Easy filling of mounting cups.

CitoVac with dispensing tube for optimal safety and time-saving.

User-friendly operation.

CitoVac with dispensing tube for optimal safety and time-saving.

CitoVac with Struers impregnation material (EpoFix).
Efficent impregnation

An efficient impregnation depends on several conditions:

1. Open pores
Only pores, cracks etc. which are open can be filled with impregnation material. After the finished preparation, closed pores can be differentiated in the microscope from pores that are filled with impregnation material, due to the different reflection of the light. The contrast of the impregnation material in the pores can be further enhanced by using EpoDye, a fluorescent dye (see specimen impregnated with EpoFix and EpoDye above).

2. Vacuum
The specimen is evacuated to the lowest possible pressure. During the impregnation itself the pressure is then adjusted so the impregnation material does not start to foam inside the vacuum chamber (100-150 millibar).

3. The viscosity of the impregnation material
The best impregnation is obtained with the most fluid material. With e.g. EpoFix the lowest viscosity is obtained at 30 - 40°C. The best result is achieved by using the impregnation material immediately after mixing, before the viscosity of the material starts to increase due to the polymerization.

4. A clean specimen
Grinding dust prevents the impregnation material from thoroughly penetrating the specimen. The specimen is best cleaned in an ultrasonic cleaner. Afterwards, it is rinsed with ethanol and dried thoroughly in order to make the impregnation agent adhere better to the surface.

5. Time
The smaller the specimen, the shorter the evacuation time to ensure that all air is removed from the voids and cracks. Depending on number and size of the specimens, the vacuum time can vary from a few minutes to 20 minutes or more.

Consumables

CitoVac is designed for optimal use with a disposable dispensing tube. In the CitoVac Consumable Kit 100 pcs. of disposable dispensing tubes and one clip to hold the tube are included.

For easy maintenance of the vacuum chamber, a disposable chamber protector to shield the chamber against the impregnation material will be available in the Consumable Kit.

e-Training

CitoVac is available with Struers e-Training. Practical help right when you need it is waiting at the Struers e-Training site. View videos with clear explanations demonstrating unpacking, installation and operation of CitoVac. Brush up your knowledge or introduce new employees to CitoVac whenever convenient. Please contact your local representative for more information.

**EpoFix Kit**
Epoxy cold mounting system curing at room temperature in about 8 hours, with no shrinkage, especially suited for vacuum impregnation. Transparent.

**Code:** EPOFI  
**Cat. no:** 4020029

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**EpoFix Resin, 1 l**
For EpoFix epoxy cold mounting system. 1 l EpoFix Resin corresponds to 130 ml EpoFix Hardener. Transparent.

**Code:** EPODE  
**Cat. no:** 4020030

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**EpoFix Hardener, 500 ml**
For EpoFix epoxy cold mounting system. 500 ml EpoFix Hardener corresponds to 4 l EpoFix Resin. Transparent.

**Code:** EPOAR  
**Cat. no:** 4020031

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**SpeciFix-20 Kit**
Epoxy cold mounting system curing at room temperature in about 8 hours, with no shrinkage, especially suited for vacuum impregnation. Transparent.

**Code:** EPO20  
**Cat. no:** 4020048

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**SpeciFix-40 Kit**
Epoxy cold mounting system curing at elevated temperature (40-60 °C) in about 3.5 hours, with very low shrinkage, suitable for vacuum impregnation. Transparent.

**Code:** EPO40  
**Cat. no:** 4020049

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**SpeciFix Resin, 1 l**
For Epoxy cold mounting system. The resin can be mixed with different curing agents to achieve various properties. For use with SpeciFix-20 or SpeciFix-40 Curing Agent.

**Code:** EPOLI  
**Cat. no:** 4020051

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**SpeciFix-20 Curing Agent, 500 ml**
For Epoxy cold mounting system for room temperature curing. 500 ml SpeciFix-20 Curing Agent corresponds to 2 l SpeciFix Resin.

**Code:** EHA20  
**Cat. no:** 4020052

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**SpeciFix-40 Curing Agent, 1 l**
For Epoxy cold mounting system curing at elevated temperature (40 - 60 °C). 1 l SpeciFix-40 Curing Agent corresponds to 2 l SpeciFix Resin.

**Code:** EHA40  
**Cat. no:** 4020053

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Please see special brochure for mounting cups, dye, taper section angles and other accessories for cold mounting.

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Struers’ products are subject to constant product development. Therefore, we reserve ourselves the right to introduce changes in our products without notice.