

# LEAK-PROOF LAB CARRIER

Hörtig Rohrpost GmbH

## One carrier with multiple features for hospitals and industrial laboratories

Our lab carrier with its multiple features suits the requirements of the transport of specimens in industrial and healthcare organizations. For example in chemical companies, a leaking of corrosive liquids and potential further damage by that, can be avoided with the leak-proof carrier. In hospitals the carrier protects from cross-contamination through leaking of liquid specimens.

### Leak-proof

#### Leak-proof carriers

Carriers sold as leak-proof on the market are not actually watertight. There are still tiny gaps in the carrier. Such carriers are not watertight inherently, but are blocked by the leaking liquid itself once it starts leaking (capillarity). As soon as the liquid inside the carrier rises in temperature, for example because the carrier got stuck in the tube, it forces through the tiny gaps (thermal expansion). The carrier is no longer leak-proof and loses its content.

#### Our solution: pressure-resistant

Our carrier is also leak-proof if the liquid cargo expands. The carrier can withstand and overpressure in the inner area –

- Leak-proof
- Temperature resistant
- Easy handling
- Hygienic
- Multifunctional
- Smart

without leaking liquids. The carrier is not only leak-proof but pressure-resistant up to 100 millibar. If you use the inner container as inlay, it provides a second layer that protects against possible leaking of liquids.

#### Use with cytostatic drugs

Leaking cytostatic drugs are common threat in hospitals. It is recommended that the medication is conveyed in containers that are break- and liquid-proof (TRGS 525 Federal Institute for Work Safety Germany). The lab carrier fits these needs perfectly.



*Lab carrier with heat insulated inner container*

## Temperature Resistant

### Temperature of the transported goods

Without a thermal insulation, the transported goods will change their temperature during the journey through the pneumatic tubes. Sensitive goods, like hot specimens, can get useless by this.

### Our solution: thermal insulation

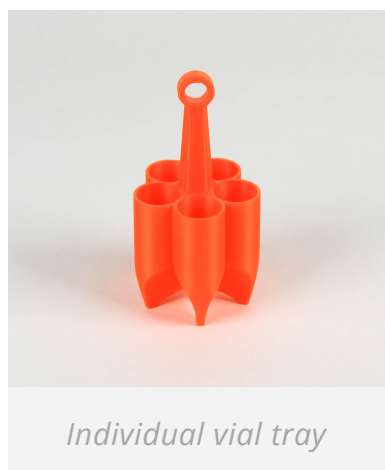
Our carrier is heat insulated in combination with our inner container that has a two-layered wall and thereby protects the temperature of the freight. This means, a sample that has been logged into the system at 150°C temperature will arrive with a temperature of 120°C after a 20 minute journey.

### Use for in vitro fertilization

Especially with in vitro fertilization it is crucial that the temperature of the cells remains constantly 36°C. Our conducted trials gave that the temperature in our inner carrier decreases not more than 4.5°C within 20 minutes.



*Heat-insulated inner container*



*Individual vial tray*

## Usability

With its easy closure mechanism, the carrier can be opened as well as closed with only one hand in just one step.

## Hygiene

### No cross-contamination

The process of charging and discharging gets more hygienic due to the inner container that can be placed into the transport carrier. The transport carrier, that is maybe contaminated from the outside, is opened with only one hand by the operator. With the remaining unpolluted hand you are able to withdraw the inner container that comprises the transported goods. Cross-contamination is being prevented.

## Smart

### Integration into customer's LIMS

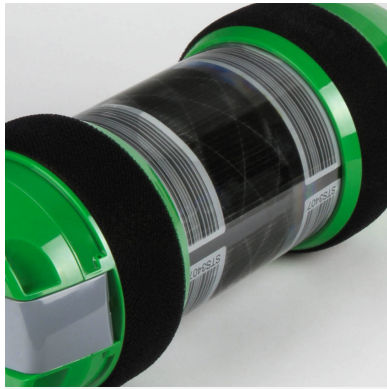
The carriers can be equipped with RFID chips and barcodes. By that, the pneumatic tube system is integrated into the customer's laboratory information system. Important information is generated, saved and analyzed. It is, for example, always transparent which carrier is at which place in the building.

## Multifunctional

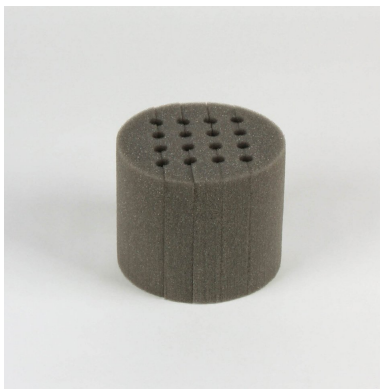
### Multitude of inlays

As supplement to our pressure-resistant carrier, we offer a multitude of inlays. Depending on your transported goods, we produce individual trays via 3D-printing.

These inlays broaden the possible uses of the carrier and make an optimal organisation of the hospital / the laboratory process possible. One carrier can be used multifunctionally for various sorts of different specimens.



Rubber coating of the carrier



Foam inlay for vials



Securing foam inlay big



High-temperature silicone inlay for 0.25 l glass bottle



Securing foam inlay small



Customized inlay (example)

## Lab Carrier

