



**ISERA**  
INNOVATION AND SERVICE IN ANALYTICS

# Vials and Closures for Chemical Analyses



**The Appropriate Sample Vial for Every Application**

# Glass Vials and Micro Inserts

## Sample Vials ND8 to ND22

- manufactured from borosilicate glass (1st hydrolytic class)

- clear or amber glass

- with or without write on patch and fill line

- with crimp top, screw neck or snap top

- optoelectronic quality control



All vials and micro inserts are also available with inertised surfaces. Glass products treated according to ISERA's **Inertised Surface**-technology (**IS-1**, **IS-2**, **IS-3**) possess different, defined characteristics which eliminate interactions of the analytes with the glass surface.

## Sample Vials for Optimal Emptying



The typically used vials are formed for the efficient sampling of a defined volume. Usually, the main part of the vial's content is not used. But sometimes the amount of sample available is low or its value is very high so that every micro litre counts.

In such cases the application of vials that were designed for an optimal emptying is the first choice. Among these are the established micro inserts and vials with fixed inserts. But there are also other vials that have been designed to enable the removal of the last micro litres.



# Closures and Septa

## Closures ND8 to ND22

For every vial a broad range of different closures is available:

- Aluminium crimp caps (including tear-off caps) and magnetic crimp caps
- Polypropylene screw caps in different colours (closed or with centre hole)
- Polypropylene snap caps



## Septa

The above-mentioned closures can be combined with various different septa. Common septa consist of an elastomer that ensures a good tightening and sealing. The elastomer is often lined on one or on both sides with a fluoropolymer that exhibits a higher chemical stability than the elastomer.

In order to meet the requirements of the vast variety of special applications we offer a broad range of septa with or without elastomer. Below a choice of septa is listed that found widespread use in chemical analytics.

- **PTFE**  
Very inert, high purity, low resealing after penetration, moderate tightening
- **NK / TEF**  
Natural rubber / fluoropolymer, very good resealing after penetration and therefore perfectly suited for multiple injections, moderate temperature stability and purity
- **Butyl / PTFE**  
Copolymer (Isobutylene, Isoprene) with PTFE-lining, often used for routine analyses, higher purity than natural rubber
- **Red Rubber / PTFE**  
Synthetic elastomer (styrene-butadiene copolymer) with PTFE-lining, cost efficient solution for many applications, easy to penetrate
- **Silicone / PTFE**  
Highly pure, PTFE-lined elastomer, very good resealing after penetration and therefore perfectly suited for multiple injections, high temperature stability

## Polypropylene Sample Vials

For analytical applications that do not allow the use of vials and micro insert of glass our assortment contains alternatives made from polypropylene.

A typical field of application for these products is ion chromatography.

Polypropylene vials can be combined with the same broad variety of closures as the glass vials.



ND9 short screw vial with fill line



0.1 ml micro insert with integrated polymer spring



## Devices for crimping

For the closing and opening of crimp caps ISERA offers manual and also pneumatic devices.

The use of pneumatic crimping devices is particularly advantageous when a large number of vials is constantly closed and opened but also when crimp caps of steel are utilised.

