

# FLUXANA<sup>®</sup>

XRF Application Solutions

## Product Catalogue

XRF Application & Sample Preparation

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## Content

FLUXANA® XRF Application Solutions ...3
History .....4

## Calibration Sets ..... 5

Calibration Sets.....6
Ready-to-go Sets.....8
Training Set ..... 10
Customer-Specific Sets..... 10

## Fusion Technology..... 11

VITRIOX® ELECTRIC Mono ..... 12
VITRIOX® ELECTRIC ..... 13
VITRIOX® ELECTRIC 4+ ..... 14
VITRIOX® GAS ..... 15
BORAMAT® Mono ..... 16
BORAMAT® 18/30 ..... 17
Safety Setup ..... 18
Tools..... 18
Quartz Crucible ..... 18
Lithium Borates..... 19
Additives..... 19
Platinum Ware ..... 20
Platinum Ware for VITRIOX® ELECTRIC 20
Platinum Ware for VITRIOX® GAS..... 20
Sample Storage..... 21

## Pressing Technology..... 23

VANEOX® 15 t manual..... 24
VANEOX® 25 t manual..... 24
VANEOX® 25 t electric ..... 25
VANEOX® 40 t manual..... 25
Pressing Dies ..... 26
Mixer and Accessories ..... 26
Rings for Pellets ..... 27
Alu Cups..... 27
Pellet Films ..... 27
Binder ..... 28
Mills and Grinding ..... 29
Table..... 29
Filling Tool ..... 29
Sample Storage..... 29
Grease Caps ..... 30

## Liquid Analysis..... 31

Thin Films ..... 32
Sample Cups..... 33
Prepared Cups..... 33
FilmVelopes..... 34
CapX Cups for XOS Analytical ..... 34
Sample Cup Preparation Tool ..... 34

## Reference Materials..... 35

FLUXearch® CRM Database ..... 36
FLUXANA® Accreditation 17034 ..... 38
FLUXANA® Reference Materials ..... 38

## Laboratory Services ..... 39

XRF Commercial Analysis ..... 40
FLUXANA® Accreditation 17025 ..... 40
Technical Service..... 40
Proficiency Tests..... 41
FLUXaminar® E-Learning..... 41

# FLUXANA® XRF Application Solutions

## About us

Our clients are X-ray fluorescence (XRF) users. This spectroscopic method is employed for elemental analysis as it enables the determination of the inorganic components in a substance/product. The method is applied throughout the entire quality assurance industry, as well as in institutions and authorities that monitor regulatory compliance.

## Product Portfolio

We deliver a wide range of sample preparation equipment, including fusion equipment, mills and presses. Additionally, we offer all types of accessories, such as cups, foils, chemicals and calibration samples, to the users of XRF.

To support our customers, we also provide commercial XRF analysis, the manufacture of new reference materials and the implementation of proficiency tests. Apart from using our products in connection with X-ray fluorescence analysis, our customers require an increasing amount of support in the practical application of these methods. For this reason, we are using our many years of XRF analysis experience to offer customers the opportunity for complete application development, including the introduction to onsite methodology in the customer laboratory.

In the past, these services were mainly requested by the cement and extractive industries. However, we now offer these services to all users of XRF – worldwide. Training courses, including the theoretical fundamentals of XRF technology and practical applications, are also offered.

## Analytical Laboratory, Sales, Support and Marketing

FLUXANA's Headquarters is located in Bedburg-Hau in the Lower Rhine area. The Research and Development of new testing methods for X-ray fluorescence analysis, within the framework of commercial analysis and external X-ray fluorescence services, is conducted here.

The central stock warehouse, together with rooms for customer training and seminars, can also be found in Bedburg-Hau. Service for the sample preparation equipment is organized from here as well.

## Production of Sample Preparation Equipment

FLUXANA operates an additional facility for the production and development of sample preparation equipment for X-ray fluorescence analysis.

## Production of Special Glassware

A further facility is located in Ilmenau, Thüringen. XRF glassware is produced there in accordance with the specifications and requirements of our customers. This glassware is used to monitor the stability of XRF instruments.



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# History

Founding of the company „FLUXANA“ by Dr. Rainer Schramm as a small business in Kleve, Germany.



2002

2006



Moving to a first bigger location in Kleve, with the first laboratory, warehouse, bureau and production.

Opening of the glass production branch in Ilmenau, a city in eastern Germany.



2008

2009



Construction of the new main location in Bedburg-Hau, Germany.

FLUXANA receives the Entrepreneur Award of the Year 2010.



2010

2014



The FLUXANA laboratory gets the DIN EN ISO/IEC 17025 accreditation

Introduction of the fusion machine VITRIOX® ELECTRIC in cooperation with „Hochschule Rhein-Waal“



2014

2016



Expanding of the main location buildings to twice the size.

Introduction of the BORAMAT® Material Doser.



2018

2019



Relaunch of the FLUXearch® database for reference materials

Launch of the FLUXaminer® e-learning platform for XRF



2020

2020



FLUXANA gets the DIN EN ISO 17034 accreditation for the manufacturing of certified reference materials

Construction of the new production building in Bedburg-Hau, Germany.



2021



## Calibration Sets

In X-ray fluorescence analysis (XRF), the analytical system must be calibrated using calibration standards.

The usual procedure begins with the purchase of reference materials which are measured as calibration standards, and then calibration and validation are conducted.

Calibration sets are used to greatly reduce the development time and cost and guarantee 100% success in setting up a calibration.



## Calibration Sets

Calibration sets are used to install applications on XRF spectrometers to ensure precise measurement. Our calibration sets cover all industries and can be highly customized.



## Content of your calibration set

### Calibration Samples

Depending on the requested calibration set, the calibration samples can be sent in different forms:



#### **Powder:**

You receive a bottle with certified reference material in powder form. This can be used to prepare a calibration sample for XRF, e.g. pressed pellet or fused bead.

**Advantage:** You retain all flexibility in sample preparation.



#### **Glass Powder:**

You receive a glass powder that contains a sample and flux. By directly filling the powder into the platinum crucible, a glass bead can be melted as a calibration sample for XRF without having to perform additional accurate weighing.

**Advantage:** You can use any fusion method.



#### **Beads:**

You receive a calibration sample already prepared as glass bead.

**Advantage:** You receive a complete calibration package, which includes more than 15 years of experience in sample preparation and XRF analysis.



### Validation Samples

In addition to calibration samples, your set will contain control samples for validation.



### Drift Monitors

For your calibration set, we also add drift monitors to the set.

Drift monitors offer excellent long-term stability and do not show changes in element composition over long periods of time.



### Sample Preparation Kit

With every calibration set, we provide a sample preparation kit. It includes all necessary accessories to prepare the samples on your sample preparation machine in your laboratory.



### Onsite/Online Calibration

Our experienced service team will always be available for questions and will install the calibration and train your staff to work with the provided set.

Even after the calibration is done, our staff will always be at your service for questions and further support.



### Participation in Round Robins

With your participation in our proficiency test, we offer you a way to control your installed application and anonymously compare your performance with other laboratories.



## Ready-to-go Sets

Ready-to-go calibration sets have been developed based on many years of experience in setting up calibrations for various industries. Countless laboratories all around the world are using these sets successfully.



### FLUXANA CEM (ISO 29581-2)

Cement Calibration Set

Item No.: CS-0001, CS-0031 (for pressed pellet)

Industry: Cement

Available as: Powder or Glass Bead

### FLUXANA RAW

Raw Material Calibration Set

Item No.: CS-0007

Industry: Cement, glass and steel industry

Available as: Powder or Glass Bead



### FLUXANA RAW PROF

Oxidic Raw Material Calibration Set

Item No.: CS-0005

Industry: All oxidic materials like ores, minerals, ceramics, etc.

Available as: Glass Powder or Glass Bead

### FLUXANA ASH

Ash Calibration Set

Item No.: CS-0002

Industry: Power stations

Available as: Glass Bead



### FLUXANA FERRO

Ferro Calibration Set

Item No.: CS-0003

Industry: Steel and metal industry, foundries

Available as: Glass Bead





## FLUXANA SLAG

Slag Calibration Set  
Item No.: CS-0017

Industry: Steel and metal industry, foundries

Available as: Glass Bead

## FLUXANA IRON ORE

Iron Ore Calibration Set  
Item No.: CS-0033

Industry: Steel industry

Available as: Glass Powder or Glass Bead



## FLUXANA REFRAC (ISO 12677)

Item No.: CS-0034 - Refractories: Alumina  
CS-0035 - Refractories: Chrom-magnesite  
CS-0036 - Refractories: Zirconia

Available as: Glass Bead

## FLUXANA SiC

Silicon Carbide Calibration Set  
Item No.: CS-0030

Industry: Refractories, ceramic

Available as: Glass Bead



## FLUXANA CC-POWDER

Continuous Casting Powder Calibration Set  
Item No.: CS-0008

Industry: Steel

Available as: Powder or Glass Bead

## FLUXANA RAW CC

Raw Materials for CC Powders Calibration Set  
Item No.: CS-0032

Industry: Steel

Available as: Powder or Glass Bead



## Ready-to-go Sets

Ready-to-go calibration sets have been developed based on many years of experience in setting up calibrations for various different industries. Countless laboratories all around the world are using these sets successfully.



### FLUXANA RAW-GLASS

Glass Raw Material Calibration Set  
Item No.: CS-0022

Industry: Raw materials in glass industry

Available as: Glass Bead

### FLUXANA GLASS

Glass Calibration Set  
Item No.: CS-0016

Industry: Glass production

Available as: Discs



## Training Set

The FLUXert® training set is a calibration set of different 3D printed samples. Together with the FLUXert® E-learning course on FLUXaminar®, it can be used to train setting up calibrations on a WDXRF spectrometer.



### FLUXert® Calibration Training Set

WDXRF Training Set  
Item No.: CS-0037

Industry: every

Contains: 3D printed samples

## Customer-Specific Sets

Our experienced and accredited laboratory will help you to find the best solution for your desired routine samples and create a customer-specific calibration set that exactly fits your needs.



## Fusion Technology

Fusion in XRF is the principle of fusing a powder sample and a lithium borate into a glass bead.

This complex process and high safety requirements place high demands on the machines for this type of sample preparation.

VITRIOX® fusion machines meet these standards and combine them with a high rate of automation.

# VITRIOX®



## VITRIOX® ELECTRIC Mono

The VITRIOX® ELECTRIC Mono is a fully automatic fusion machine with cold to cold operation for 1 sample. It is ideal for demanding quality control, method development and special applications due to its high flexibility and precision.



### Highest precision:

- closed oven with lift bottom for precise temperature control
- unique high speed 3D rotation for agitation
- equal temperature distribution



### Applications:

- complete XRF solutions with a wide range of calibrations
- volatile element analysis
- use of quartz crucibles
- use of lids



### Service:

- expert laboratory and international service team support
- installation and maintenance online courses



### Flexibility:

- modular design



### Comfort:

- autosampler handles samples automatically
- sample observation via mirror
- touch display with easy to use software
- USB port
- ready for LIMS

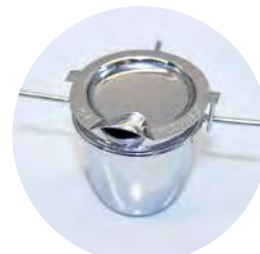


### Safety:

- casting dish monitoring
- flux resistant **FLUXinert®** ceramics
- safety housing with autolock function



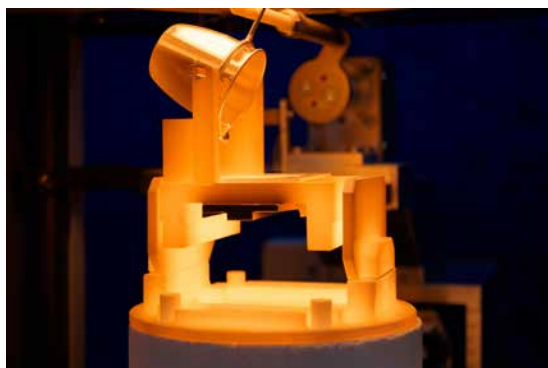
Touch display with a wide range of calibrations



Special Application: Use of lids for volatile elements



Unique high-speed 3D rotation for agitation



Technical Data	VI-0001-1
Stations:	1 XRF / ICP
Voltage:	230 V/50-60 Hz
Power:	3000 W
Power Supply:	1~ AC / 16 A
Temperatures:	0 - 1,250 °C
Permiss. Air pressure:	6 bar
Air consumption:	max. 1.5 m³/hr
Protection category:	IP 20
Length:	860 mm
Width:	740 mm
Height:	885 mm
Weight:	~ 120 kg
Samples per h:	3



## VITRIOX® ELECTRIC

The VITRIOX® ELECTRIC is a fully automatic fusion machine with cold to cold operation for 1, 2, 4 or 6 samples (1 sample at a time). It is ideal for demanding quality control, method development and special applications due to its high flexibility and precision.



### Highest precision:

- closed oven with lift bottom for precise temperature control
- unique high speed 3D rotation for agitation
- equal temperature distribution



### Applications:

- complete XRF solutions with a wide range of calibrations
- volatile element analysis
- use of quartz crucibles
- use of lids



### Service:

- expert laboratory and international service team support
- installation and maintenance online courses



### Flexibility:

- modular design
- continuous operation



### Comfort:

- autosampler handles samples automatically
- sample observation via mirror
- touch display with easy to use software and USB port
- ready for LIMS



### Safety:

- casting dish monitoring
- flux resistant **FLUXinert®** ceramics
- safety housing with autolock function



Optional stations for ICP sample preparation



Special Application: Use of quartz crucibles



Autosampler handles samples automatically

Technical Data	VI-0001-2	VI-0001-4	VI-0001-6
Stations:	2 XRF / ICP	4 XRF / ICP	6 XRF / ICP
Voltage:	230 V/50-60 Hz	230 V/50-60 Hz	230 V/50-60 Hz
Power:	3000 W	3000 W	3000 W
Power Supply:	1~ AC / 16 A	1~ AC / 16 A	1~ AC / 16 A
Temperatures:	0 - 1,250 °C	0 - 1,250 °C	0 - 1,250 °C
Permiss. Air pressure:	6 bar	6 bar	6 bar
Air consumption:	max. 1.5 m³/hr	max. 1.7 m³/hr	max. 1.9 m³/hr
Protection category:	IP 20	IP 20	IP 20
Length:	1360 mm	1380 mm	1540 mm
Width:	760 mm	760 mm	760 mm
Height:	885 mm	885 mm	885 mm
Weight:	~ 120 kg	~ 135 kg	~ 150 kg
Samples per h:	4	5	6

## VITRIOX® ELECTRIC 4+

The VITRIOX® ELECTRIC 4+ is a fully automatic fusion machine with cold to cold operation for 4, 8, 12 or 16 samples (4 samples at a time). It has been designed to achieve the best possible results in day-to-day XRF laboratory routine while offering a high throughput.



### Highest precision:

- closed oven with lift bottom for precise temperature control
- unique high speed 3D rotation for agitation
- equal temperature distribution



### Applications:

- complete XRF solutions with a wide range of calibrations
- 100 applications possible
- volatile element analysis
- use of quartz crucibles
- use of lids



### Service:

- expert laboratory and international service team support
- installation and maintenance online courses



### Flexibility:

- 4 different applications in one run
- modular design
- continuous operation



### Comfort:

- autosampler handles samples automatically
- sample observation via mirror
- touch display with easy to use software and USB port
- ready for LIMS



### Safety:

- casting dish monitoring
- flux resistant **FLUXinert®** ceramics
- safety housing with autolock function



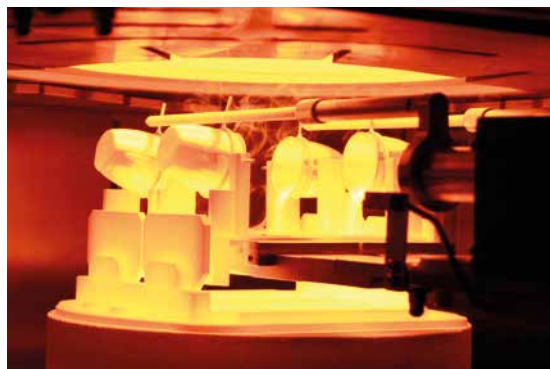
Equal temperature distribution  
on all 4 samples



Separate stations for continuous  
operation of up to 16



closed oven with lift bottom for  
precise temperature control



Technical Data	VI-0020
Samples:	4 per fusion
Sample holders:	1-4 (4 crucibles each)
Voltage:	400 V/50 Hz
Power:	7500 W
Power Supply:	3~ AC / 16 A
Temperatures:	0 - 1,250 °C
Permiss. Air pressure:	6 bar
Air consumption:	max. 2.1 m³/hr
Protection category:	IP 20
Weight:	~ 120 kg
Length:	1500 mm
Width:	750 mm
Height:	1800 mm

## VITRIOX® GAS

The VITRIOX® GAS is a gas operated fusion machine with cold to cold automation and up to 6 positions that can operate simultaneously. Its technology is based on many years experience in XRF fusion and analysis.



### Precision:

- great advantages over pressed pellets preparation
- high temperature control



### Reliability:

- robust design and high quality parts for a long product life



### Service:

- expert laboratory and international service team support
- installation and maintenance online courses



### Flexibility:

- upgradeable
- ICP/AAS and peroxide option
- USB port for application exchange



### Comfort:

- touch display for the storage of multiple application settings and fusion programs
- easy-to-use software



### Safety:

- optional platinum mould sensors
- customer-specific safety housing and fume hood
- gas detector and safety pilot



High temperature control and robust design



ICP/AAS and peroxide option

Technical Data	VI-G0002	VI-G0004	VI-G0006
Stations:	2 XRF / ICP	4 XRF / ICP	6 XRF / ICP
Voltage:	110 V/60 Hz 230 V/50 Hz	110 V/60 Hz 230 V/50 Hz	110 V/60 Hz 230 V/50 Hz
Power:	150 W	200 W	200 W
Temperatures:	0 - 1,450 °C	0 - 1,450 °C	0 - 1,450 °C
Permiss. air pressure:	4 bar	4 bar	4 bar
Rec. natural gas pressure:	250 mbar	250 mbar	250 mbar
Rec. propane gas pressure:	250 mbar	250 mbar	250 mbar
Rec. oxygen gas pressure:	2 bar	2 bar	2 bar
Air consumption:	max. 1 m <sup>3</sup> /hr	max. 2 m <sup>3</sup> /hr	max. 3 m <sup>3</sup> /hr
Oxygen consumption:	max. 0.3 m <sup>3</sup> /hr at 3 bar	max. 0.8 m <sup>3</sup> /hr at 3 bar	max. 1.2 m <sup>3</sup> /hr at 3 bar
Natural gas consumption:	max. 0.48 m <sup>3</sup> /hr	max. 0.98 m <sup>3</sup> /hr	max. 1.44 m <sup>3</sup> /hr
or: LPG* liquified petro. gas	max. 0.33 m <sup>3</sup> /hr	max. 0.48 m <sup>3</sup> /hr	max. 0.61 m <sup>3</sup> /hr
Length:	650 mm	650 mm	800 mm
Width:	535 mm	535 mm	535 mm
Height:	330 mm	330 mm	330 mm
Weight:	~ 35 kg	~ 40 kg	~ 45 kg
Samples per h:	5 - 7	8 - 10	16 - 20

## BORAMAT® Mono

The BORAMAT® Mono is an automatic dosing machine for flux. It is designed to improve the day-to-day laboratory routine, allowing the user to weigh faster and monitor every weighing. It is compatible with all common laboratory scales.



### Precision:

- fast, precise dosage, free from contamination
- intelligent flow behavior optimization



### Adaptability:

- compatible with scales from various manufacturers



### Service:

- expert laboratory and international service team support
- installation and maintenance online courses



### Flexibility:

- bottle for up to 3 kg of flux
- easy cleaning and refilling
- USB port for data exchange



### Comfort:

- easy-to-use software
- weighing protocols
- ready for LIMS



### Weighing Modes:

- sample/flux ratio
- catch weight
- absolute weight



Easy-to-use software, ready for LIMS



Compatible with scales from various manufacturers



Technical Data:	BO-0001
Power connection:	100-240 V 50/60 Hz
Supply bottle:	Thread GL45
Maximum bottle size:	3 kg
Minimal balance precision:	0.0001 g
Uncertainty (P = 95%):	0.0020 g
Software:	Windows 10
Scale requirements:	Max. capacity: 220 g Readability: 0.1 mg Connection: RS232
Length:	390 mm
Width:	370 mm
Height (without bottle):	760 mm
Weight:	17 kg



## BORAMAT® 18/30

Automatic dosing of up to 30 samples of flux. Greatly improve the efficiency and precision of your weighing routine and save time during sample preparation. The intelligent software and monitoring functions minimize error and increase security in the whole weighing process.



### Precision:

- fast, precise dosage, free from contamination
- intelligent flow behavior optimization
- integrated high quality scale



### Adaptability:

- adapters for different crucibles and beakers
- additional scale for sample weighing



### Service:

- expert laboratory and international service team support
- installation and maintenance online courses



### Flexibility:

- bottle for up to 3 kg of flux
- easy cleaning and refilling
- USB port for data exchange



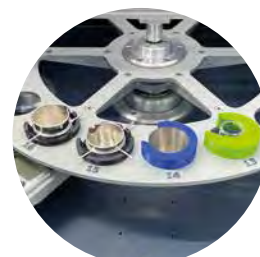
### Comfort:

- automatic weighing of 18 or 30 samples
- easy-to-use software
- weighing protocols
- ready for LIMS



### Weighing Modes:

- sample/flux ratio
- catch weight
- absolute weight



Adapters for different crucibles and beakers



Additional scale for sample weighing



Automatic weighing of up to 30 samples



Technical Data:	BO-0004 / BO-0007
Power connection:	100-240 V 50/60 Hz
Supply bottle:	Thread GL45
Maximum bottle size:	3 kg
Minimal balance precision:	0.0001 g
Uncertainty (P = 95%):	0.0020 g
Software:	Windows 10
Scale requirements:	High precision scale integrated
Length:	860 mm
Width:	560 mm
Height (without bottle):	980 mm
Weight:	66 kg

## Safety Setup

FLUXANA offers an additional safety setup and laboratory furniture that is tailored to our fusion machines. This includes tables, safety housing and the mandatory fume hoods for removing toxic gases that are generated during the fusion process of some samples.

### Fume Hood with Ventilator

Fume hood made of high-grade steel.

- Motor (230 V/50 Hz/90 mA) continuously variable to 2760 r.p.m., 110 V version also available
- Height 300 mm, length 840 mm, width 640 mm

### Table

Table with integrated drawer for all required accessories. Made of robust steel.

- Height 730 mm, length 910 mm, width 760 mm



### Safety Housing

Recommended safety housing to prevent hot surface contact by the user.

For VITRIOX® GAS, a fume hood is attached to the safety housing.

For VITRIOX® ELECTRIC, the safety housing is part of the machine. A separate table and fume hood on top are recommended.

## Tools

Item No.	Description
FS-OZ327	Crucible tongs, platinum shoes, length 230 mm, ca. 5 g Pt
VU-US1.9kit	Ultrasonic bath with heating, Vol. ca. 1.9 l for cleaning
WZ-0004a	Handling tool for beads and pellets
VU-Tiegel_Al2O3	Aluminium oxide crucible for determination of LOI (loss on ignition). Inexpensive and very robust alternative to platinum
VU-0020	Holder for cleaning moulds in ultrasonic bath

## Quartz Crucible

Item No.	Description
VI-0540	Quartz crucible for VITRIOX® ELECTRIC
FS-VIH01	Platinum holding ring for quartz crucible, ca. 13g Pt



## Lithium Borates

Anhydrous homogeneous pre-fused lithium borates (fluxes) with guaranteed purity. They have a low loss on ignition and defined granulometry. With these fluxes, the sample is totally dissolved in a borate glass with a perfect surface. With every delivery of flux you will receive a specification.



examples	Description	2kg	25kg	Granular	Beads	LiBr, Lil or NH <sub>4</sub> I
	Lithium metaborate	✓	✓	✓	✓	✓
	Lithium tetraborate	✓	✓	✓	✓	✓
	Lithium tetraborate: Lithium metaborate*	✓	✓	✓	✓	✓
	Lithium tetraborate: Lithium metaborate 35.3:64.7 1.2:2.2	✓	✓	✓	✓	✓
	Lithium tetraborate: Lithium metaborate 50:50	✓	✓	✓	✓	✓
	Lithium tetraborate: Lithium metaborate 66:34	✓	✓	✓	✓	✓

\* Customer-specific mixtures available

## Granular or Beads?

Both shapes of flux - granular or beads - share the same chemical properties and will give the same result when used in fusion. Only in the process of weighing, the differences of these types come into play. Granular flux is used in manual weighing, whereas beads need to be used when using automatic weighing machines like the BORAMAT®.



## Additives

In fusion, additives are used whenever a sample is not producing a stable fused bead. Our recipes for various applications contain instructions on how to use anti-wetting agents or oxidizing agents, for example, to prevent crystallization or breakage of the glass.



Item No.	Description
FX-ADD3	Single additive non-wetting agent
FX-CAT8	Single catalyst for ferroalloys FeTi, FeCr, FeV
FX-OXY6-500	Single oxidizer for ferroalloys and metals
FX-OXY7	Single oxidizer for slags, ferro alloys
FX-OXY8	Single oxidizer for sulfides
FX-SUL1	Borate flux for sulfide ores
FX-SUL2	Borate flux for sulfide ores
FX-INT1	Single additive internal standard

## Platinum Ware

Platinum ware made from platinum/gold 95/5 for fusion machines and laboratory needs. Old platinum ware is accepted for recycling as credit against your next order. All deliveries are insured by FLUXANA®. We also offer all platinum ware in FKS. This surface finishing increases the lifetime of your crucibles and moulds.



### Platinum Ware for VITRIOX® ELECTRIC

Item No.	Description	Inner/Outer Diameter in mm	Height mm	Bottom mm	Weight g
FS-VIT01	Crucible VIT.E	20 / 34	38	0.5	45
- FS-VID1	Lids for FS-VIT01	-	-	-	8
FS-VIT02	Crucible VIT.E Viscous	22.9 / 39.1	36	0.5	54
FS-VIT03	Crucible VIT.E Ferro	22.9 / 39.1	36	0.5	55
- FS-VID02	Lids for FS-VIT02/03	-	-	-	11
FS-VIA4012	Mould VIT.E	29 / 31	3.8	0.8	30
FS-VIA4011	Mould VIT.E	32 / 34	3.8	0.8	30
FS-VIA4010	Mould VIT.E	34 / 36	3.8	0.8	46
FS-VIA4009	Mould VIT.E	39 / 41	3.8	0.8	46
FS-VIA4015	Mould VIT.E	39 / 41	3.8	1.4	80

For your order in FKS platinum, just add "FKS" to the part number! Other sizes and thicknesses on request. Moulds with 1.4 mm bottom available.

### Platinum Ware for VITRIOX® GAS

Item No.	Description	Inner/Outer Diameter in mm	Height mm	Bottom mm	Weight g
FS-OT866	Crucible VIT.GAS	20 / 34	38	0.5	45
FS-OT867	Crucible VIT.GAS	22.5 / 36	38	0.5	54
FS-OA434	Mould VIT.GAS	29 / 31	3.8	0.8	31
FS-OA877	Mould VIT.GAS	32 / 34	3.8	0.8	31
FS-OA438	Mould VIT.GAS	34 / 36	3.8	0.8	45
FS-OA439	Mould VIT.GAS	39 / 41	3.8	0.8	46

For your order in FKS platinum, just add "FKS" to the part number! Other sizes and thicknesses on request. Moulds with 1.4 mm bottom available.





## Sample Storage

It is important to keep samples prepared as beads or pellets in a dust free and dry environment. There is a wide range of boxes and containers for single or multiple samples and standards for XRF.

### **BX-0001-18, BX-0001-24:**

Transparent boxes with lockable lid.



### **BX-0004-XX:**

Transparent boxes for individual samples (32-50 mm). See table on page 22.

Tip: Use our WZ-0004a tool to avoid finger contact with the sample.



### **BX-0004-47:**

Boxes with bead protection at the inner edge of the box. It prevents damage to the bead by avoiding contact between the bead surface and the box.



### **BX-0002-5, BX-0003-5:**

Cabinets with drawers suitable for storage of non-hygroscopic samples.



### **BX-0010, BX-0011:**

Desiccators to store your sensible calibration and monitor samples. Ideal combination with BX-0002-5, BX-0003-5 or BX-0001-24.



### **BX-0017:**

Special case for five drift monitor beads



## Sample Storage

It is important to keep samples prepared as beads or pellets in a dust free and dry environment. There is a wide range of boxes and containers for single or multiple samples and standards for XRF.

Item No.	Description	Compartments
BX-0001-18	Box 210x120x35 mm with lid	18x max 32 mm Ø pellets
BX-0001-24	Box 330x220x53 mm with lid	24x max 52 mm Ø pellets
BX-0002-5	Drawer cabinet with 5 drawers, each with 42 partitions for max 34mm Ø, Height 17 mm (ideal for pellets max 34 mm Ø)	210x max 34 mm Ø pellets
BX-0003-5	Drawer cabinet with 5 drawers, each with 25 partitions for max 34mm Ø, Height 17 mm (ideal for pellets max 42 mm Ø)	125x max 42 mm Ø pellets
BX-0004-36-5	Box for single sample H 5mm, set of 100 pcs.	max 36mm pellets
BX-0004-39	Box for single sample H 15 mm, set of 100 pcs.	max 34 mm pellets
BX-0004-46	Box for single sample H 16 mm, set of 100 pcs.	max 42 mm pellets
BX-0004-47	Box for single fusion beads H 6 mm, set of 100 pcs.	max 46 mm pellets
BX-0004-50	Box for single sample H 25 mm, set of 100 pcs.	max 50 mm pellets
BX-0006-P	Plastic Tweezer for beads	
BX-0007-2-S	Dry pearls for Dessiccator, 1kg	
BX-0010	Desiccator W350 x H334 x D410 mm incl. dry pearls, tray for dry pearls and hygrometer to combine with storage case 1x BX-0002-5 or 1x BX-0003-5 or 3x BX-0001-24	
BX-0011	Desiccator W640 x H550 x D410 mm incl. dry pearls, tray for dry pearls and hygrometer to combine with storage case 4x BX-0002-5 or 4x BX-0003-5 or 12x BX-0001-24	
BX-0012	Box K2001 for up to 10 samples with a maximum diameter of 50mm, to combine with our round sample boxes BX-0004-47	
BX-0017	Special case for five drift monitor beads	

Additional drawers to add to the cabinet are available in various colours. Other dimensions on request.



# Pressing Technology

The pressing of a sample into a pressed pellet using a professional press is a common way to prepare a sample in XRF.

While it is less precise than fusion, it is a much faster and cheaper way to prepare a sample.

VANEOX® presses offer a large range of high-quality presses that are suitable for every area of application.

**VANEOX®**  
Pressing Technology

## VANEOX® 15 t manual

- Manual Operation
- Up to 15t maximum pressure
- Two lever positions
- Stroke: 16mm
- Entry-level model – ideal for benchtop ED-XRF



Technical Data	PR-15
Max pressure	15 t*
Pressure display	0-20 t
Piston	100 mm
Stroke	16 mm
Bolster screw diameter	40 mm
Bolster screw travel	200 mm
Min. distance between pressing faces	95 mm
Max. distance between pressing faces	165 mm
Dimensions (L x W x H)	310 x 400 x 560 mm
Weight	76 kg



## VANEOX® 25 t manual

- Manual Operation
- Up to 25t maximum pressure
- Stroke: 16mm
- Basic model – suitable for most XRF pressing applications

Technical Data	PR-25N
Max pressure	25 t
Pressure display	0-25 t
Piston	100 mm
Stroke	16 mm
Bolster screw diameter	40 mm
Bolster screw travel	200 mm
Min. distance between pressing faces	95 mm
Max. distance between pressing faces	165 mm
Dimensions (L x W x H)	310 x 400 x 560 mm
Weight	76 kg



## VANEOX® 25 t electric

- Automatic Operation
- Up to 25t maximum pressure
- Stroke: 30mm
- High throughput model – ideal for WD-XRF



Technical Data	PR-25A
Max pressure	25 t
Pressure display	0-25 t
Piston	115 mm
Stroke	30 mm
Bolster screw diameter	40 mm
Bolster screw travel	200 mm
Min. distance between pressing faces	70 mm
Max. distance between pressing faces	170 mm
Dimensions (L x W x H)	340 x 475 x 840 mm
Weight	115 kg



## VANEOX® 40 t

- Automatic Operation
- Up to 40t maximum pressure
- Stroke: 60mm
- Touch display with 10 application programs
- Programmable, high convenient all-rounder



Optional drawer sensor protects pressing dies from over-pressure

Technical Data	PR-40
Max pressure	40 t
Pressure display	Touch Display
Piston	100 mm
Stroke	60 mm
Voltage	110 - 240 V;50/60 Hz
Dimensions (L x W x H)	340 x 550 x 490 mm
Weight	120 kg

## Pressing Dies

The pressing dies with 32 and 40 mm are commonly used in pressing samples for XRF and XRD analysis and many other industrial applications. In addition, FLUXANA can produce dies with diameters between 8 and 55 mm. All dies are equipped with nitrile O-ring seals and 2 pellets between which the sample is pressed.



Item No.	Description	Diameter Inner/Outer
PR-CD-60XX	VANEOX® 15 - 25 t - Pressing Die, XX = diameter in mm	8 - 52 mm
PR-CD-60XXR	VANEOX® 15 - 25 t - Pressing Die for rings, XX = diameter in mm	16 - 25 / 20 - 51,5 mm
PR-40-CDXX	VANEOX® 40 t - Pressing Die, XX = diameter in mm	8 - 40 mm
PR-40-CDXXR	VANEOX® 40 t - Pressing Die for rings, XX = diameter in mm	32 - 35 / 40 / 51,5 mm

Other diameters and dies for special applications on request.

## Mixer and Accessories

Mixer with variable speed control: 0-3000 rpm, powerful 30 watt motor, continuous or touch activation and shock-absorber feet

Dimensions: 145 x 175 x 140 mm (W x D x H), Weight: 1.9 kg  
Power AC 230 V/50 Hz or 110 V/60 Hz



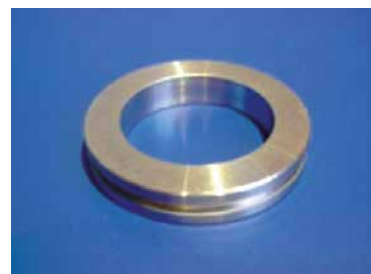
Item No.	Description
MU-XRF-Mixing Set	XRF Mixing Starter Kit (XRF-Mixer, holding clip, 5 O-rings, 100 containers, 100 balls, 1 bottle wax (250 g), 1 anti-slip mat, 1 plastic forcep)
	<b>All parts are also available individually:</b>
MU-K-Mixer	Mixer to mix sample with wax (does not include holding clip for mixing containers)*
MU-K-Holder	Holding clip for mixing container for use with XRF-Mixer
MU-SContainer	Mixing container 40 ml (100 pcs.)
MU-MB-380-1	Mixing balls, 9 mm (100 pcs.)
MU-K-Ring	O-ring to fix the holding clip on the XRF-Mixer (5 pcs.)
MU-K-Mat	Anti-slip mat
BX-0006-P	Plastic Tweezer for mixing balls



\* also available in 5 mm and 12.7 mm, please ask for a quote

## Rings for Pellets

Rings are used in automatic as well as manual sample processing. They are suitable for stabilizing the sample.



Item No.	Description	Quantity
PR-CD-6032RingM	Outer diameter 40 mm, inner diameter 32 mm, height 14 mm	1
PR-CD-6035RingM	Outer diameter 40 mm, inner diameter 35 mm, height 14 mm	1
WZ-0002	Outer diameter 51.5 mm, inner diameter 35.1 + 0.05 mm, height 8.7 mm, external 2.5 mm groove	1

## Alu Cups

Alu cups are used to stabilize your sample from 2 sides. However, for successful use, the sample must show at least some binding properties. Other advantages of this method include the possibilities for labeling and intake with autosamplers.



Item No.	Description	Quantity
AC-530-1	Alu cups straight wall 30 mm x 8 mm for 32 mm pellets	1,000 pcs
AC-538-6	Alu cups straight wall 38.5 mm x 9.5 mm for 40 mm pellets	600 pcs
AC-550-6	Alu cups straight wall 39.8 mm x 7.5 mm for 40 mm pellets	600 pcs
AC-532-1	Alu cups taper wall 31 mm x 7.9 mm for 32 mm pellets	1,000 pcs
AC-540-6	Alu cups taper wall 39.8 mm x 9.2mm for 40 mm pellets	600 pcs

## Pellet Films

Pellet films are used to allow polymers to be pressed using a standard die and press. Additionally, the pellet film makes extra cleaning of the die unnecessary and prevents contamination of your sample.



Item No.	Description	Diameter / mm
TF-PF-32500	Pellet film 500 pieces	32
TF-PF-40500	Pellet film 500 pieces	40

## Binder

**BOREOX®** is a direct replacement for boric acid. This is a harmless organic material that shows excellent binding properties and high resistance to X-rays. It is particularly good when used as a backing material.



Alternatively, **CEREOX®** can be used. CEREOX® is comprised of a wax, previously known as Hoechst wax. This material is clean and very resistant to X-rays. Mixed with a sample (1 part wax to 4 parts sample), CEREOX® forms a perfect pellet with any material.



**CELLEOX®** is a cellulose based binder. The binding properties are not as good as BOREOX® and CEREOX®. Therefore, it is mainly used as a grinding aid but it is also available as grinding aid tablets. A particular property is the absorption of liquids so it can be used, mixed with aggressive liquids, for analysis in a sample cup.



Item No.	Description	Packaging
<b>Binders</b>		
BM-0002	CEREOX® * (Licowax C, Hoechst wax) for XRF	0.25 / 5 / 20 kg
BM-0003	CELLEOX® Cellulose powder for XRF	0.25 / 20 kg
BM-0008	BOREOX® (replacement for boric acid) for XRF	0.25 / 5 / 20 kg
<b>Grinding aid tablets</b>		
BM-0003-1K	CELLEOX® grinding aid tablets 0.33 g each	1 kg
BM-0003-5K	CELLEOX® grinding aid tablets 0.33 g each	5 kg
BM-0003-20K	CELLEOX® grinding aid tablets 0.33 g each	20 kg





## Mills and Grinding

Quick, efficient pulverization and homogenization, High sample throughput due to short grinding times and two grinding stations, Reproducible results with digital pre-selection of grinding time and vibrational frequency, Large range of grinding jars



Item No.	Description	Quantity
MU-RMM400	Mixer Mill MM400 for 100-240 V, 50/60 Hz	1
MU-RMM400-MZr35	Zirconia grinding jar 35 ml	1
MU-RMM400-MK25ZRO	Zirconia grinding ball 25 mm	1
MU-RMM400-MWC25	Tungsten carbide grinding jar 25 ml	1
MU-RMM400-KWC15	Tungsten carbide grinding ball 15 mm	1

Other mills with accessories on request.

## Table

Every VANEON<sup>®</sup> press can be mounted on the table, The table has an integrated drawer for all required accessories, Made of robust steel, Height 730 mm, width 910 mm, depth 760 mm

Item No.: VI-0004



## Filling Tool

This tool allows to create a thin layer of sample onto the top of a pellet made of BOREON<sup>®</sup> binder. Especially suitable for low sample quantities.



Item No.	Description
PR-CD-BA32	Filling tool BOREON <sup>®</sup> backing for 32 mm die
PR-CD-BA40	Filling tool BOREON <sup>®</sup> backing for 40 mm die

## Sample Storage

It is important to keep pressed pellets in a dust free and dry environment. There is a wide range of boxes and containers for single or multiple samples and standards for XRF.

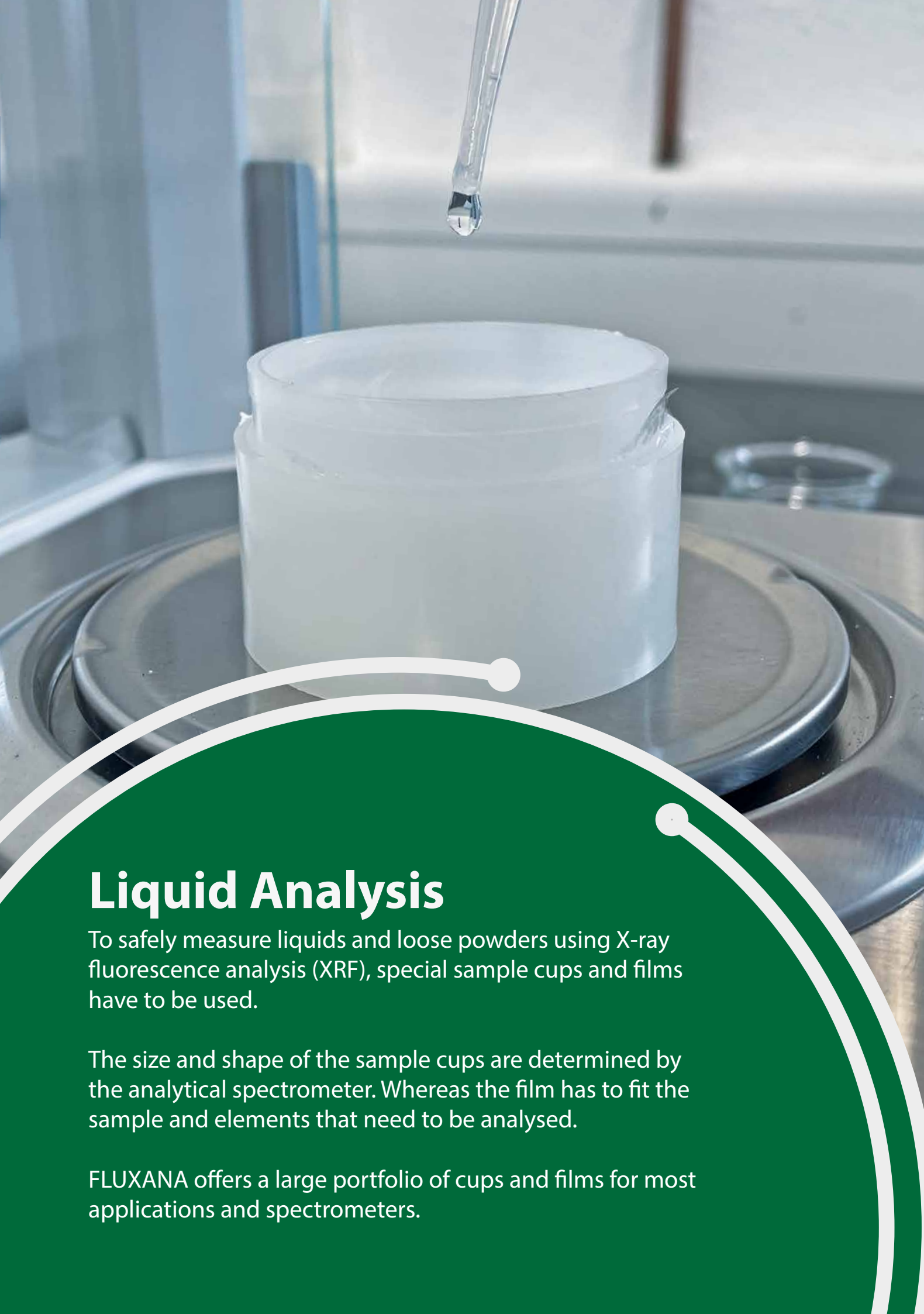
For an assortment of sample storage option, see page 21.



## Grease Caps

Grease caps are used to safely and effectively analyze high viscosity samples in XRF. They are made of BOREOX® and have a 1 mm depression. High viscosity oil and fat samples, such as grease or creams, can be filled into the depression and are then analyzed in a sample cup.

Item No.	Description	Quantity
BM-0008-pellet_34mm	Boreox pellet, diameter 34mm for fat analysis according to DIN51829	100 pcs
BM-0008-pellet_36,5mm	Boreox pellet, diameter 36.5mm for fat analysis according to DIN51829	100 pcs
BM-0008-pellet_40mm	Boreox pellet, diameter 40 mm for fat analysis according to DIN51829	100 pcs



## Liquid Analysis

To safely measure liquids and loose powders using X-ray fluorescence analysis (XRF), special sample cups and films have to be used.

The size and shape of the sample cups are determined by the analytical spectrometer. Whereas the film has to fit the sample and elements that need to be analysed.

FLUXANA offers a large portfolio of cups and films for most applications and spectrometers.

## Thin Films

The advantages of our thin films: **25% more pre-cut films per package than other brands**, dust proof, antistatic packaging, lot number tracking system, rolls, pre-cut circles & sheets



Item No.	Description	Thickness $\mu\text{m}$	Packaging
TF-025	Microporous Polypropylene	2.5	Roll 6.4 cm x 5.0 m
TF-050	Microporous Teflon	2.5	Roll 6.4 cm x 5.0 m
TF-112	Mylar®	12	Roll 7.6 cm x 91.4 m
TF-112-345	Mylar®	12	Square 7.6 cm x 7.6 cm (500 pcs.)
TF-115	Mylar®	1.5	Roll 7.6 cm x 91.4 m
TF-115-345	Mylar®	1.5	Square 7.6 cm x 7.6 cm (500 pcs.)
TF-125	Mylar®	2.5	Roll 7.6 cm x 91.4 m
TF-125-255	Mylar®	2.5	Circle 6.4 cm (500 pcs.)
TF-125-345	Mylar®	2.5	Square 7.6 cm x 7.6 cm (500 pcs.)
TF-135	Mylar®	3.5	Roll 7.6 cm x 91.4 m
TF-135-255	Mylar®	3.5	Circle 6.4 cm (500 pcs.)
TF-135-345	Mylar®	3.5	Square 7.6 cm x 7.6 cm (500 pcs.)
TF-135-355	Mylar®	3.5	Circle 8.9 cm (500 pcs.)
TF-160-F	Mylar®	6.0	Roll 7.6 cm x 91.4 m
TF-160-255	Mylar®	6.0	Circle 6.4 cm (500 pcs.)
TF-160-345	Mylar®	6.0	Square 7.6 cm x 7.6 cm (500 pcs.)
TF-160-355	Mylar®	6.0	Circle 8.9 cm (500 pcs.)
TF-212	Polypropylene	12.0	Roll 7.6 cm x 91.4 m
TF-212-345	Polypropylene	12.0	Square 7.6 cm x 7.6 cm (500 pcs.)
TF-225	Polypropylene	25.4	Roll 7.6 cm x 15.2 m
TF-240	Polypropylene	4.0	Roll 7.6 cm x 91.4 m
TF-240-255	Polypropylene	4.0	Circle 6.4 cm (500 pcs.)
TF-240-30	Polypropylene	4.0	Circle 7.6 cm (100 pcs.)
TF-240-60	Polypropylene	4.0	Circle 6.4 cm (60 pcs.)
TF-240-345	Polypropylene	4.0	Square 7.6 cm x 7.6 cm (500 pcs.)
TF-240-355	Polypropylene	4.0	Circle 8.9 cm (500 pcs.)
TF-250	Polypropylene	5.0	Roll 7.6 cm x 91.4 m
TF-250-345	Polypropylene	5.0	Square 7.6 cm x 7.6 cm (500 pcs.)
TF-260	Polypropylene	6.0	Roll 7.6 cm x 91.4 m
TF-260-255	Polypropylene	6.0	Circle 6.4 cm (500 pcs.)
TF-260-345	Polypropylene	6.0	Square 7.6 cm x 7.6 cm (500 pcs.)
TF-260-355	Polypropylene	6.0	Circle 8.9 cm (500 pcs.)
TF-412	Kapton®	12.7	Roll 7.6 cm x 15.2 m
TF-475	Kapton®	7.5	Roll 7.6 cm x 15.2 m
TF-475-345	Kapton®	7.5	Square 7.6 cm x 7.6 cm (500 pcs.)
TF-500-2	XRF Tape	-	Roll 25 mm x 66 m
TF-LS-240-255	Polypropylene Low Sulfur	4.0	Circle 6.4 cm (500 pcs.)



## Sample Cups

FLUXANA's sample cups are designed for use in XRF. All cups have been optimized and approved by our customers worldwide.

We offer a large range of XRF sample cups.



Item No.	Description	OD	ID	H	Vol
SC-138	Cup for Rigaku Micro-Z ULS and Mini-Z	36	33	26	25
SC-3332	Cup, ring, cap for: Spectro, XEPOS®, XLAB 2000®	31	24	23	9
SC-3335	Cup, ring, cap for Philips/Panalytical®	35	28	35	17
SC-3340	Inner ring, outer ring, cap for: Bruker®, SRS, S4, S8, ARL Optimix®	41	34	25	17
SC-3340T	Inner ring, outer ring, cap for: Bruker® SRS, S4, S8, Perform'X	41	32	36	22
SC-3345	Inner ring, outer ring, cap universal for 45mm	45	37	37	33
SC-3345-H*	Inner ring, outer ring, cap for helium ventilation	45	37	37	33
SC-3351	Cup, cap universal for 51,5mm holder	51	44	41	48
SC-4031	Cup, ring, single open ended, universal open for 32mm holder	31	24	24	9
SC-4131	Cup, ring, collar single open ended, universal for 32mm holder	32	25	24	9
SC-4140	Cup, ring, collar single open ended, universal for 40mm holder	40	32	23	16
SC-4231	Cup, 2 rings, double open ended, universal for 32mm holder	31	24	24	10
SC-4232	Cup, 2 rings, double open ended for Spectro XEPOS®, XLAB 2000®	32	26	21	11
SC-4240	Cup, 2 rings, double open ended, universal for 40mm holder	39	32	23	18
SC-4331	Cup, ring, cap universal for 32mm holder	31	24	26	9
SC-4332	Cup, ring, cap for Spectro XEPOS®, XLAB 2000®	32	26	23	11
SC-4335	Cup, ring, cap for Philips/Panalytical®	34	27	36	17
SC-4340	Cup, ring, cap universal for 40mm holder	39	31	25	15
SC-4345	Cup, cap for Philips/Panalytical®	45	38	41	35
SC-7332	Inner cup and cap, designed for Oxford®	34	28	38	16
SC-7332inner	Only inner cup, designed for Oxford LABX®	32	28	36	22
SC-7332cap	Only cap, designed for Oxford LABX®	-	-	-	-
SC-8047	Cup, ring, single open ended, for Horiba® 47mm holder	42	36	19	18
SC-MC-1520	XRF micro-sample cups, double open-ended with vented caps	31	15	27	3,6

## Prepared Cups

If you want to save time in sample preparation, use ready-to-use cups with film. The prepared cups are customizable and come with a test certificate.



- no time-consuming preparation
- assured quality
- high repeatability

Please ask for a non-binding offer.

## FilmVelopes

Ready-to-use film cutouts, suitable for various cups, no cutting necessary, no film waste, easy handling and low probability of error



Item No.	Description	Thickness $\mu\text{m}$	Packaging
TF-FV-135-112	Mylar®, 38.1 mm Ø	3.5	bag, 100 pcs.
TF-FV-135-212	Mylar®, 50.8 mm Ø	3.5	bag, 100 pcs.
TF-FV-160-112	Mylar®, 38.1 mm Ø	6	bag, 100 pcs.
TF-FV-160-212	Mylar®, 50.8 mm Ø	6	bag, 100 pcs.
TF-FV-240-112	Polypropylene, 38.1 mm Ø	4	bag, 100 pcs.
TF-FV-240-212	Polypropylene, 50.8 mm Ø	4	bag, 100 pcs.
TF-FV-M30-112	Membrix RF, 38.1 mm Ø	3	bag, 100 pcs.
TF-FV-M30-212	Membrix RF, 50.8 mm Ø	3	bag, 100 pcs.

## CapX Cups for XOS Analytical

CapX are micro cups prepared with film. They can be used in XOS analytical instruments like Sindie Gen3, Clora, HD Maxine and Sindie OTG.

Item No.	Description	Thickness $\mu\text{m}$	Packaging
SC-PA-620	Mylar® (TF-135)	3.5	pack 12 pcs.
SC-PA-640	Mylar® (TF-160)	6.0	pack 12 pcs.
SC-PA-694	MembriX	3.0	pack 12 pcs.

## Sample Cup Preparation Tool

The WZ-0001 tool is a simple solution for the preparation of sample cups with films. It reduces the probability of errors and makes the preparation a lot easier.

- suitable for various cups
- no fingerprints on the film
- high repeatability





## Reference Materials

Reference materials are used for the calibration and quality control of XRF spectrometers.

Finding the right standards for an application is a difficult task due to the wide range of internationally available materials.

FLUXANA® produces its own reference materials and with FLUXearch® - the fastest search database for standards - we offer a great solution for easy findings.

## FLUXearch® CRM Database

FLUXearch® is a comprehensive database with over 23,000 reference materials for XRF and OES. It is updated and extended daily to provide you with reliable information and current products.



### Step 1: Login

Visit [www.fluxearch.com](http://www.fluxearch.com) and register free-of-charge with the **"Register here"** button. You can use the database immediately after successful registration with your E-mail address and password.

### Step 2: Search

The FLUXearch® search mask offers many possibilities for searching for reference materials. The following points can be found from the **"Search by Composition"** menu item:

**Search by element:** Select the desired elements and concentrations in per cent or ppm; the database shows a list of the available reference materials.

**Category:** classification into the categories aluminium, chips, solids and additional.

**Base:** filtered according to the base material, e.g., ores, cements, slags and many more.


**Content:** filtered according to the content of the materials, e.g., iron ores, aluminium ores, lithium ores, etc.


As an alternative, it is possible to use the **"Search by Reference Material"** menu item to search for a given product directly. Here, it is also possible to search for a product number, the manufacturer code or by using a full-text search.


Part #	Base	Content	Manufacturer	Manufacturer's code	
FI008210	Cement, raw meal, clinker	Cements	FX	FLX-CRM 113	Al <sub>2</sub> O <sub>3</sub> : 5,06%, 0,007%, Fe <sub>2</sub> O <sub>3</sub> : (1,53)%, MgO: 0,092%, P <sub>2</sub> O <sub>5</sub> : 2,47%, SO <sub>4</sub> 2-: 0,064%, TiO <sub>2</sub> :
FI008219	Cement, raw meal, clinker	Cements	FX	FLX-CRM 122	Al <sub>2</sub> O <sub>3</sub> : 5,60%, 0,004%, Fe <sub>2</sub> O <sub>3</sub> : (4,86)%, MgO: 0,204%, P <sub>2</sub> O <sub>5</sub> : (3,27)%, SO <sub>4</sub> 2-: 0,131%, TiO <sub>2</sub> :
FI009426	Cement, raw meal, clinker	Cements	IAG	OPC-1	Al <sub>2</sub> O <sub>3</sub> : 4,55%, tot.: 3,19%, K <sub>2</sub> O: 2,58%, MnO: (0,044)%, SiO <sub>2</sub> : (4,6)ppm, Ba: 48,9ppm, Co:



# The Fastest Database for Reference Materials


Quick Guide Support Logout  Hello,

MATERIAL:  NEWLY ADDED MATERIALS:




Unit:  Remove: 

INDUSTRIAL LIQUID AQUEOUS LIQUID PETRO

Content:

Exclude sold out: ☒  RESET

<< < 1 > >>

Composition	Dimension	Status	Price	Cart
CaO: 63,63%, Cr2O3: 2,75%, K2O: 0,619%, LOI: 2,49%, Mn2O3: 0,233%, Na2O: 0,135%, S2-: (0,137)%, SO3: 2,40%, SiO2: 20,98%, SrO: 0,231%, ZnO: 0,030%	30g	available	€263,00	
CaO: 59,00%, Cr2O3: 1,67%, K2O: 0,900%, LOI: 2,02%, Mn2O3: 0,111%, Na2O: 0,066%, S2-: (0,288)%, SO3: 2,62%, SiO2: 21,94%, SrO: 0,353%, ZnO: 0,027%	30g	available	€263,00	
CO2: (0,49)%, CaO: 62,9%, Fe2O3: 0,34%, LOI: (1,2)%, MgO: 0,404%, Na2O: (0,11)%, P2O5: 21,85%, TiO2: 0,318%, As: 512,0ppm, Be: (0,8)ppm, Ce: 21,4ppm, Cs: 1,0ppm, Cu:	35g	available	€192,00	

## Step 3: Choose

Click on the shopping basket icon next to the desired product, and it is added to your shopping cart.

You can now continue to searching for and adding other products or complete the search and view the items in your shopping cart.

## Step 4: Request

In your shopping cart, which can be found in the upper right corner of the page, it is possible to view the products that have been added. If necessary, change the **"Quantity"** of an item or remove it from the shopping cart by clicking on the red cross under **"Remove."**

An non-binding offer can be requested by clicking on **"Request for Quote."** In some cases, you will be asked to enter further contact data that we require to fulfil the request.

After this, you will receive a confirmation of your order. The FLUXANA® team will then reply with a non-binding offer as soon as possible.

## Do you need support?

Our experienced team is pleased to help in your search for reference materials and to competently answer your questions. Please let us know if you have any problems with the search or with the data in FLUXsearch®.

Contact us by clicking on **"Support"** on the overview page.

## FLUXANA® Accreditation 17034

FLUXANA® is an accredited manufacturer of reference materials according to DIN EN ISO 17034:2017.

Find more information and our accreditation certificate under:


[www.fluxana.com/17034](http://www.fluxana.com/17034)



## FLUXANA® Reference Materials

FLUXANA® has many years of experience in producing certified reference materials of the highest quality for the calibration and validation of your X-ray fluorescence spectrometer.



On our homepage [www.fluxana.de](http://www.fluxana.de) you can recognize the reference materials produced under accredited conditions by this symbol: . Here you can also download documents such as safety data sheets, proficiency test reports and certificates.

Our large assortment of reference materials comes from the following areas:

- Cements
- Cements with Chlorine
- Cements with Sulfate and Sulfide
- Cements (high  $\text{Al}_2\text{O}_3$ ), low  $\text{SiO}_2$
- Continuous Casting Powders
- Limestones
- Refractories
- Used Car Catalysts
- Zeolites

Example from our homepage:



= Accredited according to DIN EN ISO 17034: 2017

Cements:						
Article	Content	Accreditation	MSDS	Report	Certificate	
FLX-1001 Cement	$\text{Al}_2\text{O}_3$ , BaO, CaO, $\text{Cr}_2\text{O}_3$ , $\text{Fe}_2\text{O}_3$ , $\text{K}_2\text{O}$ , MgO, $\text{Mn}_2\text{O}_3$ , $\text{Na}_2\text{O}$ , $\text{P}_2\text{O}_5$ , $\text{SiO}_2$ , $\text{SO}_3$ , SrO, $\text{TiO}_2$ , $\text{V}_2\text{O}_5$ , ZnO		<a href="#">MSDS</a>	<a href="#">PT-REPORT</a>	<a href="#">CERTIFICATE</a>	
FLX 1002 Cement	$\text{Al}_2\text{O}_3$ , CaO, $\text{Cr}_2\text{O}_3$ , $\text{Fe}_2\text{O}_3$ , $\text{K}_2\text{O}$ , MgO, $\text{Mn}_2\text{O}_3$ , $\text{Na}_2\text{O}$ , $\text{P}_2\text{O}_5$ , Si, $\text{SO}_3$ , $\text{TiO}_2$		<a href="#">MSDS</a>	<a href="#">PT-REPORT</a>	<a href="#">CERTIFICATE</a>	
FLX-138	$\text{Al}_2\text{O}_3$ , CaO, $\text{Fe}_2\text{O}_3$ , $\text{K}_2\text{O}$ , MgO, $\text{Mn}_2\text{O}_3$ , $\text{P}_2\text{O}_5$ , $\text{SO}_3$ , $\text{SiO}_2$ , SrO, $\text{TiO}_2$ , ZnO		<a href="#">MSDS</a>	<a href="#">PT-REPORT</a>	<a href="#">CERTIFICATE</a>	
FLX-137	$\text{Al}_2\text{O}_3$ , CaO, $\text{Fe}_2\text{O}_3$ , $\text{K}_2\text{O}$ , MgO, $\text{Mn}_2\text{O}_3$ , $\text{P}_2\text{O}_5$ , $\text{SO}_3$ , $\text{SiO}_2$ , SrO, $\text{TiO}_2$ , ZnO		<a href="#">MSDS</a>	<a href="#">PT-REPORT</a>	<a href="#">CERTIFICATE</a>	
FLX-CRM-103	$\text{Al}_2\text{O}_3$ , CaO, $\text{Fe}_2\text{O}_3$ , $\text{K}_2\text{O}$ , MgO, $\text{Mn}_2\text{O}_3$ , $\text{P}_2\text{O}_5$ , $\text{SO}_3$ , $\text{SiO}_2$ , SrO, $\text{TiO}_2$ , $\text{Cr}_2\text{O}_3$ , ZnO, $\text{Na}_2\text{O}$		<a href="#">MSDS</a>		<a href="#">CERTIFICATE</a>	

All certified reference materials by FLUXANA® can also be found in our database at [www.fluxearch.com](http://www.fluxearch.com).



# Laboratory Services

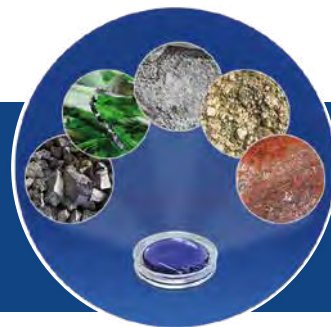
The constant expansion and improvement of our services is a decisive success factor for FLUXANA®.

Thanks to our extensive analysis laboratory and our own production of sample preparation machines, we are well equipped for all problem solutions and can support our customers in all areas.



## XRF Commercial Analysis

FLUXANA® can draw on a wealth of experience in terms of XRF analysis. Utilisation of both energy dispersive XRF (EDXRF) and wavelength dispersive XRF (WDXRF) ensures full coverage of all of the possibilities provided by this technology. The laboratory work of FLUXANA® is in accordance with DIN EN ISO/IEC 17025:2018.



Find more information and our accreditation certificate under:  
**[www.fluxana.com/17025](http://www.fluxana.com/17025)**



### Accredited chemical analysis:

Norm	Material	Description	FLUXANA Art.-No.
ISO 29581-2:2010-03	cement, raw meal, clinker	Accredited chemical analysis according to DIN EN ISO/IEC 17025 of cement, raw meal, clinker (XRF) in accordance with ISO 29581-2, FLUXANA specification AA-0001 incl. sample preparation with analysis report	DL-0003-AA-0001
DIN 51001:2003-08	oxidic raw materials	Accredited chemical analysis according to DIN EN ISO/IEC 17025 of oxidic raw materials (XRF) in accordance with DIN 51001, FLUXANA specification AA-0002 incl. sample preparation with analysis report	DL-0003-AA-0002
DIN 51418-2:2015-03	slags	Accredited chemical analysis according to DIN EN ISO/IEC 17025 of slags (XRF) in accordance with DIN 51418-2, FLUXANA specification AA-0003 incl. sample preparation with analysis report	DL-0003-AA-0003
DIN 51001:2003-08	raw materials for cement, glass and steel industry	Accredited chemical analysis according to DIN EN ISO/IEC 17025 of raw materials for cement, glass and steel industries (XRF) in accordance with DIN 51001, FLUXANA specification AA-0004 incl. sample preparation with analysis report	DL-0003-AA-0004
DIN 51418-2:2015-03	ferro silicon alloy	Accredited chemical analysis according to DIN EN ISO/IEC 17025 of ferro silicon alloy (XRF) in accordance with DIN 51418-2, FLUXANA specification AA-0006 incl. sample preparation with analysis report	DL-0003-AA-0006
DIN 51418-2:2015-03	ferro tungsten alloy	Accredited chemical analysis according to DIN EN ISO/IEC 17025 of ferro tungsten alloy (XRF) in accordance with DIN 51418-2, FLUXANA specification AA-0007 incl. sample preparation with analysis report	DL-0003-AA-0007
DIN 51418-2:2015-03	ferro niobium alloy	Accredited chemical analysis according to DIN EN ISO/IEC 17025 of ferro niobium alloy (XRF) in accordance with DIN 51418-2, FLUXANA specification AA-0008 incl. sample preparation with analysis report	DL-0003-AA-0008
DIN 51418-2:2015-03	ferro molybdenum alloy	Accredited chemical analysis according to DIN EN ISO/IEC 17025 of ferro molybdenum alloy (XRF) in accordance with DIN 51418-2, FLUXANA specification AA-0011 incl. sample preparation with analysis report	DL-0003-AA-0011
DIN 51001:2003-08	oxidic raw materials with fluorine	Accredited chemical analysis according to DIN EN ISO/IEC 17025 of oxidic raw materials with fluorine (XRF) in accordance with DIN 51001, FLUXANA specification AA-0012 incl. sample preparation with analysis report	DL-0003-AA-0012
DIN EN ISO 12677:2013-02	aluminumoxide with zirconium	Accredited chemical analysis according to DIN EN ISO/IEC 17025 of aluminumoxide with zirconium (XRF) in accordance with DIN EN ISO 12677, FLUXANA specification AA-0013 incl. sample preparation with analysis report	DL-0003-AA-0013
DIN EN ISO 12677:2013-02	chromium magnesium oxide, chromium ore and chromium aluminum oxide	Accredited chemical analysis according to DIN EN ISO/IEC 17025 of chromium magnesium oxide, chromium ore and chromium aluminum oxide (XRF) in accordance with DIN EN ISO 12677, FLUXANA specification AA-0014 incl. sample preparation with analysis report	DL-0003-AA-0014
DIN 51418-2:2015-03	polyethylene, polypropylene	Accredited chemical analysis according to DIN EN ISO/IEC 17025 of polyethylene and polypropylene (XRF) in accordance with DIN 51418-2, FLUXANA specification AA-0015 incl. sample preparation with analysis report	DL-0003-AA-0015
DIN 51418-2:2015-03	all elements given in Uniquant report (F-U)	Accredited chemical analysis according to DIN EN ISO/IEC 17025 of all elements given in Uniquant report (XRF) in accordance with DIN 51418-2, FLUXANA specification AA-0017 incl. sample preparation with analysis report	DL-0003-AA-0017
DIN 51418-2:2015-03	ferro manganese alloys, ferro silicomanganese alloys and ferro phosphorus alloys	Accredited chemical analysis according to DIN EN ISO/IEC 17025 of ferro manganese alloys, ferro silicomanganese alloys and ferro phosphorus alloys (XRF) in accordance with DIN 51418-2, FLUXANA specification AA-0018 incl. sample preparation with analysis report	DL-0003-AA-0018
DIN 51001:2003-08	continuous casting powder	Accredited chemical analysis according to DIN EN ISO/IEC 17025 of continuous casting powder (XRF) in accordance with DIN 51001, FLUXANA specification AA-0019 incl. sample preparation with analysis report	DL-0003-AA-0019
DIN EN 196-2:2013-10	cement - determination of sulfate	Accredited chemical analysis according to DIN EN ISO/IEC 17025 of cement - determination of sulfate (XRF) in accordance with DIN EN 196-2, FLUXANA specification AA-0020 incl. sample preparation with analysis report	DL-0003-AA-0020
DIN 51418-2:2015-03	ferro titanium alloy	Accredited chemical analysis according to DIN EN ISO/IEC 17025 of ferro titanium alloy (XRF) in accordance with DIN 51418-2, FLUXANA specification AA-0024 incl. sample preparation with analysis report	DL-0003-AA-0024



Norm	Material	Description	FLUXANA Art.-No.
DIN 51418-2:2015-03	ferro chromium	Accredited chemical analysis according to DIN EN ISO/IEC 17025 of ferro chromium alloy (XRF) in accordance with DIN 51418-2, FLUXANA specification AA-0025 incl. sample preparation with analysis report	DL-0003-AA-0025
DIN 51418-2:2015-03	silicon carbide	Accredited chemical analysis according to DIN EN ISO/IEC 17025 of silicon carbide (XRF) in accordance with DIN 51418-2, FLUXANA specification AA-0026 incl. sample preparation with analysis report	DL-0003-AA-0026
DIN 51418-2:2015-03	ferro vanadium alloy	Accredited chemical analysis according to DIN EN ISO/IEC 17025 of ferro vanadium alloy (XRF) in accordance with DIN 51418-2, FLUXANA specification AA-0028 incl. sample preparation with analysis report	DL-0003-AA-0028
DIN 51418-2:2015-03	car catalysts	Accredited chemical analysis according to DIN EN ISO/IEC 17025 of car catalysts in accordance with DIN 51418-2 (XRF), FLUXANA specification AA-0030 incl. sample preparation with analysis report	DL-0003-AA-0030
ISO 9516-1:2003-04	iron ore	Accredited chemical analysis according to DIN EN ISO/IEC 17025 of iron ore (XRF) in accordance with ISO 9516-1, FLUXANA specification AA-0036 incl. sample preparation with analysis report	DL-0003-AA-0036
ISO 29581-2:2010-02	gravimetric determination of loss on ignition	Accredited chemical analysis according DIN EN ISO/IEC 17025 for gravimetric determination of loss on ignition in accordance with ISO 29581-2:2010-02, FLUXANA specification AA-0037 incl. sample preparation with analysis report	DL-0003-AA-0037
ISO 12677:2013-2	zirconium oxide	Accredited chemical analysis according DIN EN ISO/IEC 17025 of Zirconium oxide (XRF) in accordance with ISO 12677:2013-2, FLUXANA specification AA-0038 incl. sample preparation with analysis report	DL-0003-AA-0038
DIN 51399-2 2010	lubricants	Accredited chemical analysis according DIN EN ISO/IEC 17025 of lubricants (XRF) in accordance with DIN 51399-2 2010, FLUXANA specification AA-0039 incl. sample preparation with analysis report	DL-0003-AA-0039
DIN 51418-2:2015-03	glass samples	Accredited chemical analysis according DIN EN ISO/IEC 17025 of glass samples (XRF) in accordance with ISO 51418-2, FLUXANA specification AA-0040 incl. sample preparation with analysis report	DL-0003-AA-0040

### Non-accredited chemical analysis:

Material	Description	FLUXANA Art.-No.
powders, liquids, metals	Screening analysis (XRF) (non-accredited) after sample preparation according to FLUXANA specification NA-0001 with analysis report	DL-0003-NA-0001
oxidic raw materials	Screening analysis (XRF) (non-accredited) after sample preparation according to FLUXANA specification NA-0003 with analysis report	DL-0003-NA-0003
raw materials for cement, glass and steel industry	Chemical analysis (non accredited) of raw materials for cement, glass and steel industry (XRF), FLUXANA specification NA-0017 incl. sample preparation with analysis report	DL-0003-NA-0017

## Proficiency Tests

FLUXANA® is an international provider of proficiency testing. Based on DIN EN ISO/IEC 17043, we regularly offer proficiency testing for X-ray fluorescence analysis.



By participating in proficiency testing, it is possible to compare your analytical methods and test procedures with other international laboratories. To do this, we regularly have various proficiency tests for typical X-ray fluorescence analyses (XRF) in our program. In keeping with state-of-the-art technology, we apply „robust statistics“ for our evaluation method.

### Professional Proficiency Test Evaluation

We offer professional evaluations to customers who perform proficiency tests. Our evaluations come with „robust statistics“ in compliance with DIN 38402-45 and ISO/TS 20612.

Please visit our website for information on current round robins.

## Technical Service

Customers service is our top priority. All customers receive comprehensive service. Especially the use of sample preparation in the customer laboratory repeatedly raises questions. The FLUXANA® team of experts is here to give you advice and support either per mail, telephone, online or in person on site.

### Maintenance

To ensure the proper functioning and optimal operation of our machines, FLUXANA® offers maintenance and maintenance contracts. The maintenance is performed by qualified service technicians.



## FLUXaminar® E-Learning

FLUXaminar® is an extensive XRF e-learning platform by FLUXANA®. It allows users worldwide to access information on XRF related topics at any time.

[www.fluxaminar.com](http://www.fluxaminar.com)



Item Nr.	Description	Language
	<b>XRF Training Courses</b>	
DL-FXEL-0012	XRF Training course "XRF PRACTICAL AND EASY"	EN
DL-FXEL-0013	XRF Training course "RFA in der Praxis"	DE
	<b>FLUXert Calibration Courses</b>	
DL-FXEL-0015	FLUXert Calibration Course	EN
DL-FXEL-0014	FLUXert Kalibrierkurs	DE
	<b>XRF Software Training Courses</b>	
DL-FXEL-0016	Supermini 200 Calibration Course	EN
DL-FXEL-0019	Supermini 200 Kalibrierkurs	DE
DL-FXEL-0008	OXSAS Calibration Course	EN
DL-FXEL-0018	OXSAS Kalibrierkurs	DE
DL-FXEL-0021	Cours d'étalonnage OXSAS	FR
DL-FXEL-0009	UniQuant integrated in OXSAS Calibration Course	EN
DL-FXEL-0017	UniQuant integrated in OXSAS Kalibrierkurs	DE
DL-FXEL-0022	Cours d'étalonnage UniQuant intégré dans OXSAS	FR
DL-FXEL-0011	UniQuant 5.0 Calibration Course	EN
DL-FXEL-0010	UniQuantED 6.0 Calibration Course	EN



# FLUXANA®

XRF Application Solutions



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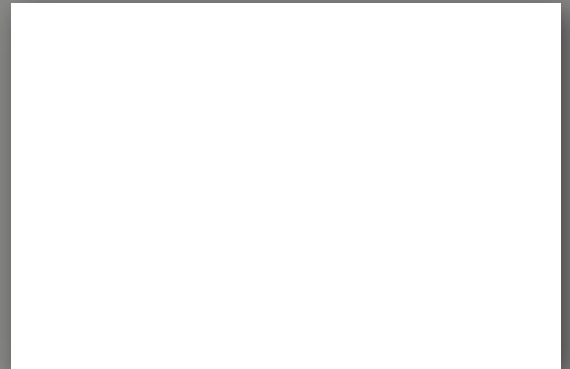
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Finanzamt Kleeve



Official agent