DIRECTION CENTER

Gateways to Thin-Film Sample Support Windows

Navigation from the Direction Center will provide access to the Gateways to technical information, "How to Select a Thin-Film," and products related to thin-film sample support windows. Simply click on the item of interest in the border.

Gateway to Technical Information on Thin-Film Sample Support Window Substances

- Thickness Variations
- Melting Points
- Densities
- Structural Formulae
- Purity
- Chemical Resistance to Samples

It is suggested that the analyst become familiar with the information and its location for reference to some important characteristics of the various thin-film substances. The information is presented to serve as a guide in considering the selection of an appropriate thin-film sample support window substance.

Gateway to "How to Select a Thin-Film Sample Support Window"

- Convenience of Use
- Contamination Avoidance
- Thin-Film Gauges
- Analyte-line % Transmittance

There are specific considerations involved in selecting a thin-film sample support window most suitable for x-ray spectrochemically analyzing a sample material. The information furnished is intended to assist the analyst in the evaluation process.

Gateway to Continuous Rolls and Pre-Cut Circles

Continuous Rolls are thin-films wound on individual spools to certain lengths; each roll contains 3” (76 mm) widths by 300’ (91.4 m) lengths of thin-film. The overall diameter of the roll changes in accordance with the thickness of the thin-film; the thinner the gauge of the thin-film substance, the smaller the diameter of the roll. There are contamination issues through dispensing the thin-film from the serrated cutting edged boxes and handling for attachment to sample cups. Static cling is an annoying issue in attempting to assemble a sample cup and particularly in dealing with the clippings after trimming.

Pre-Cut Circles are 2.5” (6.4 cm) in diameter and will be accommodated by most sample cups less than 40 mm in diameter. The circles are interleaved with a special lint-free paper that serves as carrier frame for added convenience in affixing to XRF Sample Cups. Circles are packaged in boxes with thumb-holes for ease of removal in quantities of 500 units and 1000 units. Contamination is an issue in handling. Static cling is prevalent and requires some dexterity in handling.

Gateway to SpectroMembrane® Thin-Film Sample Support Window Frames

SpectroMembrane® Carrier Frames are thin-films mounted on paper frames that have had their circular center sections removed. The thin-film is serrated near the edge of the paper

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Reference Standard Sources

Data Bases

XRF Instrument Manufacturer's Showcase

XRF Sample Cups and Accessories

Grinding Machines and Accessories

Briquetting Presses and Accessories

Grinding/Briquetting Additives

Fusion Machines and Accessories

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SpectroMembrane® Carrier Frames

Microporous Pressure Equalizing Film

Accessories

RoHS Compliant Thin Films

Microporous Film

RoHS European Council Directive 2002/95/EC

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frame. During the thin-film attachment procedure to a sample cup, the paper frame automatically detaches leaving the thin-film sample support substance in position for final securing to the sample cup.

The thin-film is never directly handled. All manipulations are performed by means of handling the paper frame. Contamination possibilities are eliminated and there is no annoying static cling. SpectroMembrane® Thin-Film Carrier Frames resolve all issues with handling thin-film substances for x-ray spectroscopy applications. SpectroMembranes® are packaged 100 units per box to correspond to the same quantity of sample cup sets available in a package.

Gateway to Palm-Held Snap-On Ring, Sleeve and Thin-Film Fastener

This handy device is small enough to fit into a palm hand and takes the soreness out when assembling XRF sample cups with Snap-On Rings or Sleeves.

Cleverly designed with a series of counter-bores, it can accommodate the majority of sample cup diameters and configurations.

Simply align the Palm-Held Fastener over the Snap-On Ring or Sleeve and gently push down. During this process, the thin-film sample support window remains stretched over the sample cup Cell and upon assembly completion it's firmly secured for a taut thin-film sample plane.

Gateway to Snap-On Ring and Thin-Film Fastener

XRF Sample Cups designed with a "Bead-to-Indent" geometry for affixing thin-film windows to the Cells with Snap-On Rings are greatly facilitated by using the Snap-On Ring Fastener. By applying a slight amount of pressure to the finger lever the Snap-On Ring is slowly and uniformly attached to the Cell. During the process assembly process the thin-film substance maintains its tautness to form a perfect sample cup presentation effortlessly.

Gateway to Palm Held Vent-Hole Punch

XRF Sample Cups requiring venting for differential pressure equalization, the Vent-Hole Punch is an invaluable palm held tool.

Through a series of counter-bores, the Vent-Hole Punch will accommodate the majority of sample cups integrating a ThermoPlastic™ Seal.

Simply fit the Vent-Hole Punch over the closed end of the assembled sample cup and push downward. This action extends an awl that punches a hole through the ThermoPlastic™ Seal without any effort. The awl retracts after use in readiness for the next preparation.

Gateway to Microporous Polypropylene Gas Permeable Film Membrane

Microporous Gas Permeable Film is used in applications that require differential pressure equalization between the sample chamber and within the sample cup containing a non-volatile liquid or powdered sample material. The micro pores follow a tortuous path of travel from one surface of the film to the other. Powdered sample particles are too large to become withdrawn and liquids similarly behave. The thin-film sample plane remains taut.

Gateway to Compliance with the European RoHS Directive

As consumer and environmental groups have become more intensified in the presence of certain elements and their concentration levels in plastic materials, Chemplex Industries, Inc. is voluntarily complying with the ROHS European Council Directive. The adjacent stylized symbol has been adopted by Chemplex Industries, Inc. to alert users of its related products of compliance for environmental responsibility.