



● D8 ENDEAVOR Cement

In close cooperation with the cement industry and automation companies, Bruker AXS has constantly extended the analytical capabilities of X-ray diffraction (XRD) over the last years. XRD combined with TOPAS Rietveld analysis is nowadays the most powerful technique for doing quantitative phase analysis of hotmeal, bypass, kilndust, clinker and cements. As a direct method it exceeds traditional concepts that use indirect parameters or simplified models, such as the Bogue approach.

The new D8 ENDEAVOR represents the next step up to optimized data quality and usability. Higher counting statistics with reduced and flattened background result in shorter measurement times, lower limits of detection and significantly improved accuracy and reproducibility of results.

Combined with the XRD Method Package Cement the new D8 ENDEAVOR is the perfect solution for the industry. It offers direct phase analysis along the entire production process, ranging from raw materials, intermediate products like hotmeal and dusts (REACH) to clinker and the finalized cements. Analytical highlights are the capability to distinguish the Alite polymorphs M1 & M3 and the quantification of amorphous phases by the proprietary PONKCS method. All methods are factory assembled and ready for use at the customer site directly after instrument installation.

- Raw Materials, Hotmeal
- Bypass and Kilndust (REACH)
- Clinker, Cements



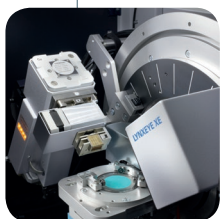
High altitude



Dust



Eco



LYNXEYE XE detector



Sample magazine with 66 positions

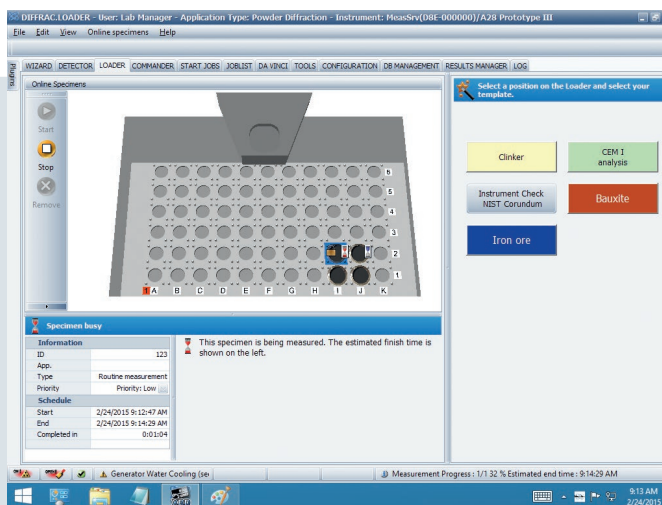


EasyLoad tray

Features

- Data Quality
 - Energy dispersive LYNXEYE detector with integrated K β -filtering, resulting in an intensity gain of 65%
 - Dynamic Beam Optimization (Variable Divergence Slit, Motorized Anti-Scatter Screen) improved quantification of amorphous phases by low and flat background without fluorescence or white-beam residues
- Sample handling
 - Sample magazine with 66 positions for \varnothing 51.5 mm or with 72 positions for \varnothing 40 mm
 - EasyLoad trays, holding up to 20 samples of \varnothing 51.5 mm
 - Pre-loading measurement position to increase sample throughput
 - Push button and Touch screen operation
- Automation
 - Connection via conveyor belt or robot interface
 - Two ports option left or right side from the back
- Customer specific application support and training
 - XRD Method Package Cement covering the entire process mineralogy
- Software
 - DIFFRAC.EVA for Cluster analysis
 - TOPAS BBQ fully automated Rietveld quantitative phase analysis
 - Results Manager with SPC charts
- Environmental options
 - Harsh Environment - Extended operation conditions for dust and high operational temperatures at highest power (3 kW);
 - ECO - Operation without need for external cooling water at 1 kW

The Loader Software allows simple and intuitive measuring of samples. Operator training is reduced to a minimum. The Results Manager provides statistical analysis and SPC charts.



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