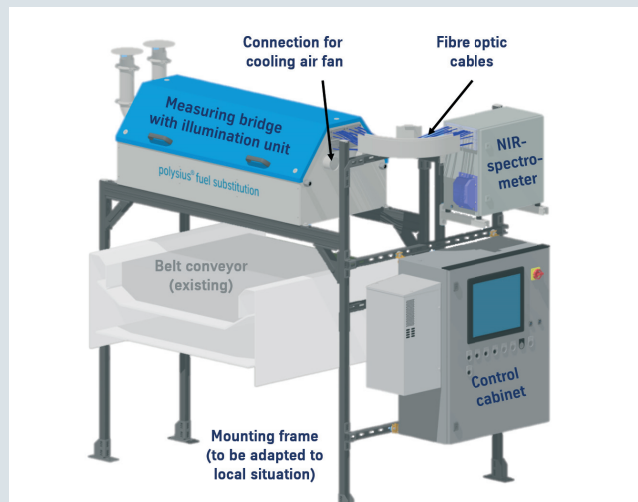


polysius® Real-time monitoring & control of alternative fuels



Calorific value / Material composition / Water content / Chlorine



Stabilize your process and maximize the thermal substitution rate

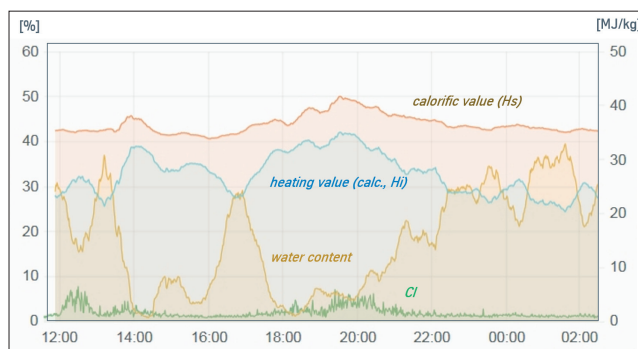
If you want to improve your clinker burning process while increasing the thermal substitution rate, NIR (near-field infrared) spectroscopy is the perfect tool to handle even inhomogeneous and varying waste streams. It is a physical analysis method that enables a qualitative and quantitative determination of known substances.

Unsteady composition and fluctuating water content of the substitute fuels lead to an uncontrolled release of heat (energy input) when using a gravimetric or volumetric metering. We provide the NIR (near-field infrared) measurement system for online determination of water content and material composition. With this, the calorific value and thus the energy input can be controlled. The fuel substitution rate can be increased to the max while producing high quality clinker. In addition, we offer chlorine concentration control in your process by triggering changes in the bypass rate or in the composition of different types of alternative fuel. The system is also used to supervise the quality of the supplied solid alternative fuels.

The NIR spectroscopy is a physical analysis method that enables a qualitative and quantitative determination of known substances. Therefore the remitted infrared fraction of the illuminated sample is read and will be analyzed online by a NIR spectrometer.

Our measuring and analysis system is supplied as pre-assembled, ready-to-connect modules. Its control cabinet is ready for connection. The measuring system is delivered pre-assembled in the housing including all needed cables. Collected

NIR data, together with several other process parameters, can be stored and processed over long time periods using our tkIS edge device (Local Analyze Interface / LAI).



Typical trend of water content, heating value and chlorine input. Sudden changes in heating value can be detected before they affect the heat balance of the precalciner or kiln.

Your service advantages

- Control the waste heat amount instead of waste mass flow
- Optimize your combustion process by smart control
- Monitor chlorine and minimize the bypass rate by smart control
- Produce stable clinker quality
- Check quality of your waste supplier