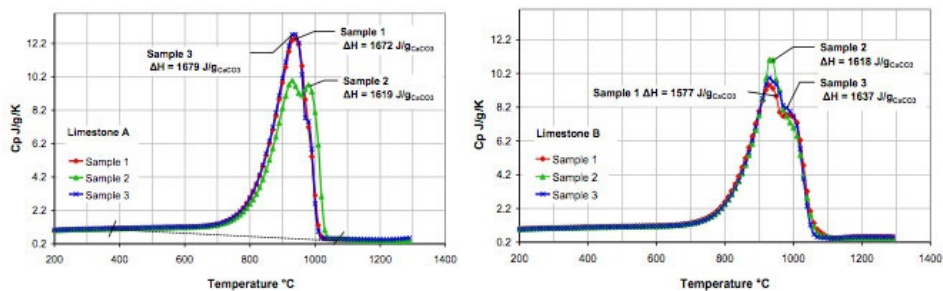
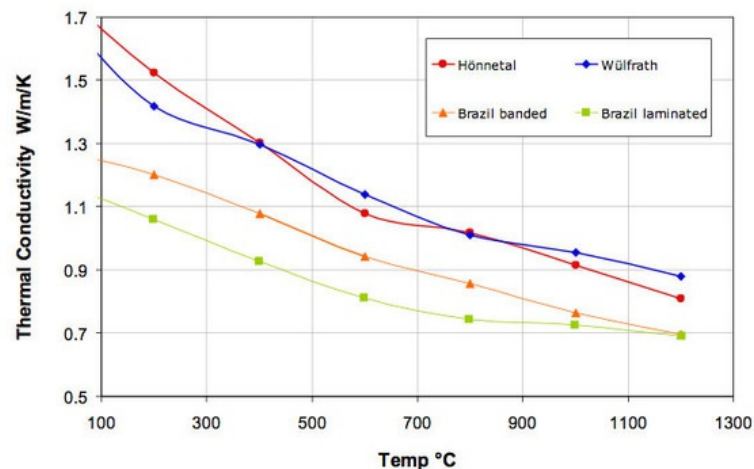


## Measurement of thermophysical Material Properties up to 1600 °C

The thermophysical material property thermal conductivity, specific heat capacity, thermal expansion (change in density), phase transformation and decomposition temperature will be measured at temperatures up to 1600 °C, but just until the highest melt temperature.

To determine the thermal conductivity, thin slices of the examined material will be bombarded with a laser pulse. The subsequent increase of temperature at the top is measured in high resolution with an infrared camera. By the one-dimensional heat conduction, the temperature diffusivity can be calculated. The samples can be measured at various temperature levels and in different atmospheres several times.

The specific heat capacity and density are measured temperature-dependent in special devices. (see Thermal Analytical Laboratory).



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#### Dynamic Simulation of Heat Treatment Processes

- ▶ Rotary Kilns
- ▶ Shaft Kilns
- ▶ Tunnel Kilns
- ▶ Roller Kilns
- ▶ Combustion Processes
- ▶ Measurement of thermophysical Material Properties
- ▶ Intensive Cooling
- ▶ Drying Processes