

ProcessOPT HE-M for wood type determination

Glue Reduction and optimized production management in MDF- and particle board production.

Only few wood product industry sites allow loading of the plants with reliably only one type of wood. Mixtures are common and in many regions changes in forest management bring changes in the raw material portfolio, which the mill must adapt to. Typically, qualities are separately stored in silos, but the split often is not very properly done. Thus, the exact ratio between hard- and softwood or the wood type distribution are often only estimated or empirical values.

But, as soft- and hardwood need different amounts of glue to achieve a defined board quality, plant operators often use additional glue to be on the safe side.

APOS addresses exactly this point with its new ProcessOPT HE-M product. APOS has developed a system type which allows recognition and visualization of the mixture ratio and transfer the data to the plant control system. The plant control system in a next step allows either optimized use of glue or an optimized mix of the wood qualities (e.g. by automatic management of screws emptying the silos based on the APOS values). Even certain types of wood, e.g. poplar, can be identified.

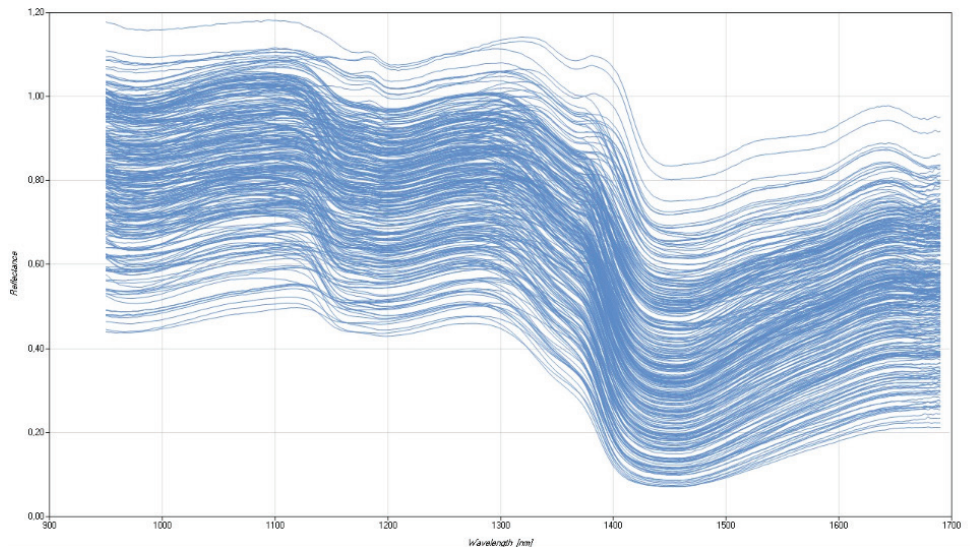


Screenshot visualization module

APOS has adapted the APC (APOS Prediction Calculator) and has created calibrations and measurements by spectroscope for common wood types, by means of hundreds of wood chip samples and hundreds of further mixed samples.

The information of various wood types is included in the near-infrared spectrum in a complex manner. Interferences (such as noise, scattered light, surface influences and temperature) are eliminated by APOS' APC to achieve stable results under all typical environmental conditions.

In addition, there is a newly developed visualization in APOS ProcessOPT and the possibility to store customer specific control algorithms.



NIR-spectrum chip mixture

The number of ProcessOPT applications is continuously in development and is driven by customer priority and in cooperation with a key customer for the related project. APOS uses its system components as a base in order to ensure an appropriate cost/benefit ratio for the each project.

Measurement of other parameters is generally possible. The measurement speed of < 1sec does not change by the number of parameters.

More questions? Please contact us any time to discuss further!