

## Online moisture analysers installed to improve sinter production efficiency

A major global steel manufacture with facilities in Serbia recently engaged online moisture analysis specialist Callidan Instruments in regards to improving sinter production efficiency by better controlling moisture content.

An integral part of the refurbishment of the sinter production line in the company's Smederevo plant, was the installation of a MoistScan® MA-500HDi to provide feed-back control of water addition so that the sinter feed moisture can be tightly controlled.

The MoistScan® is installed on a moving conveyor taking the mixer discharge to the sinter over the feed hopper. The conveyor moves such that the material in the hopper below is evenly distributed for feeding into the sinter oven.

A spokesman for the company said that "the amount of moisture in the sinter has a great impact on the balling process. As well as moisture content, the method and point of water addition are important."

If the sinter mix has excessive moisture it produces a weak, spongy ball which may be destroyed upon handling or which upon further moisture absorption in sintering, depreciates completely.

If the sinter has insufficient moisture, it prevents optimum degree of balling to be attained and the small balls are weak because air inclusion reduces the capillary attraction between particles.

Due to harsh environmental conditions at the Serbian plant the Moistscan® was ruggedized to suit the extreme cold temperatures. This required the installation of internal thermostically controlled heaters within the cabinet of the analyser.

Commissioning Engineer Nev Hoger, said that typically moisture variations for the sinter were 5% - 12% total moisture. The Moistscan® performed exceptionally well on the sinter product responding accurately to the variations in moisture.

MoistScan® online moisture analysers transmit a microwave signal through 100% of the material. By measuring changes in the strength and velocity of the signal the percentage moisture is accurately determined.

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