

Application Note



building

agriculture

bio fuels

MEASURING MOISTURE IN NICKEL ORE

Customer

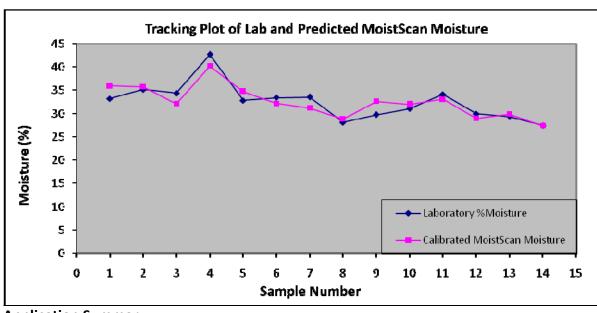
The customer is a major nickel operation in Indonesia. The nickel operation processes the ore into a nickel matte product. The ore is dried in one of three rotary dryers before being passed through to the kilns. The dry ore, as well as any additives introduced in the kilns, is then smelted in the furnaces to produce the nickel product. This product is then transported from site for further purification.

Installation

Six MoistScan® online microwave analysers are installed around the rotary dryers, one MA-500HD on each feed conveyor and one standard MA-500 on each product conveyor.

Benefit

The MoistScan® analysers enable feed-forward and feed-back process control of the dryers.



Application Summary

Feed

Material	Nickel Ore
Instrument	MA-500
Location	On Conveyor
Bed Depth	0 mm to 450 mm
Particle Size	<1 mm to 100 mm
Product	_

Product	
Material	Nickel Ore
Instrument	MA-500HD
Location	On Conveyor
Bed Depth	50 to 150 mm
Particle Size	<1 mm to 20 mm

Moisture	25% to 45%
Belt Speed	2m.s ⁻¹
Temperature	20 to 40 ºC
Precision	±2.00% (1SD)
Use	Burner and conveyor control

Moisture	15% to 30%
Belt Speed	1 m.s ⁻¹
Temperature	NA
Precision	±1.00%
Use	Burner and conveyor control