

PELLETIZING & PULVERIZING SYSTEMS >



COLOR CONTROL

Efficient process control
and plastic pellet color measurement



The COLOR CONTROL was developed for on-line color measurement directly on the pellet and is one of the most modern online color measuring systems in the world. Whether you're creating a new color formula, correcting a color, or controlling color consistency, COLOR CONTROL helps ensure the product quality your customers always expect, saving you time and money.

Two in one: competent analysis and professional production monitoring and control of up to six production lines at the same time.

Your benefits

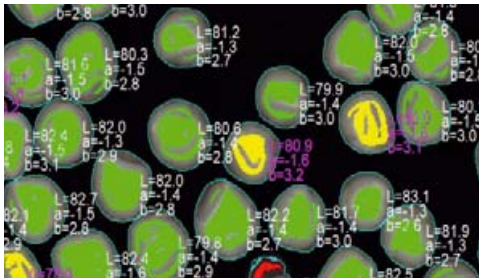
- Rapid color measurement on the pellet: about 2 minutes
- Contactless measuring
- Pellet/granule quantity for color measurement: only 35 ml
- Pellets with shadow and light differences, contamination, or stress whitening are filtered out
- Rapid color correction
- Extruder does not have to be stopped – less off-spec production
- Possibility of automatic control of the dosing unit simplifies the production process
- Increases production capacities

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How the COLOR CONTROL works

The COLOR CONTROL can measure the color on the pellets in a reproducible manner within very narrow tolerances. Pellet samples are taken fully automatically and conveyed to the COLOR CONTROL. Cross contamination is not possible. A multi-spectral camera scans the pellet samples. More than four million pixels are assessed with reflectance spectra. With an intelligent image processing system, shadows and stress whitening zones can be filtered out. The color measurement results are issued on the basis of hundreds of thousands of spectra in lab values. As a rule, better reproducibility on the pellets is achieved than with color measurements using plaques.



Single pigment concentrates (SPCs) are used for corrections. This is clean and effective, as well as affordable and fast. White and black SPCs are sufficient for the majority of corrections. With blue, yellow and red most remaining color issues can be solved easily. Existing production lines can also be retrofitted with the color measurement system. Operators see the success of a corrective step immediately. Color deviations can be detected during the production. This enables operators of the COLOR CONTROL to react immediately, either manually, semiautomatically or full automatically.

Features

- High precision color measurement: CIE-Lab & spectrum
- Cutting defects and stress whitening at pellet edges do not disturb color measurement
- Spectroscopic image processing
- Full automatic operation
- Self calibrating, self monitoring
- Sample temperature control
- Fast: 25 measurements/hour

Technical specifications:

Amount of pellets per measurement:	35 ml
Dimensions of the measuring area:	50 x 500 mm ²
Illuminant:	D65/UV excl. 10° observer
Color measurement:	Cie-L*a*b* / 10° observer
Number of pixels in the measuring area:	> 4 million
Spectral resolution:	400 - 700 nm, every 10 nm
Time for one measurement:	about 2 minutes
Reproducibility:	dependent on pellets $\Delta E < 0.2$

