

In-Line Color Monitoring for Float Glass

FLOATSCAN COLOR

Minimize Costs – Maximize Quality



**Driven by Competence.
Powered by Innovation.**

ISRA
VISION

High Quality with Advanced C

Profitable. Ac

Multi-Spectral. In-Line. Full surface – Color Monitoring

ISRA's cutting-edge automatic float glass inspection is designed to increase efficiency and quality in production. The combination of the best technologies available, even multi spectral, ensures high quality product control and throughput. Using special color high-end cameras, progressive frame grabber, and high power white light illumination, combined with sophisticated detection and evaluation software allows for superior inspection results.

Increase Yield. Control Process – 100% Inspection In-Line

FLOATSCAN Color is the multi-spectral inspection solution for coating color of float glass. It's usage makes manual inspection obsolete. It combines ISRA proven color evaluation technology with robust system design for float application. Furthermore, it enables the process transparency by user-friendly monitoring and analysis tools.

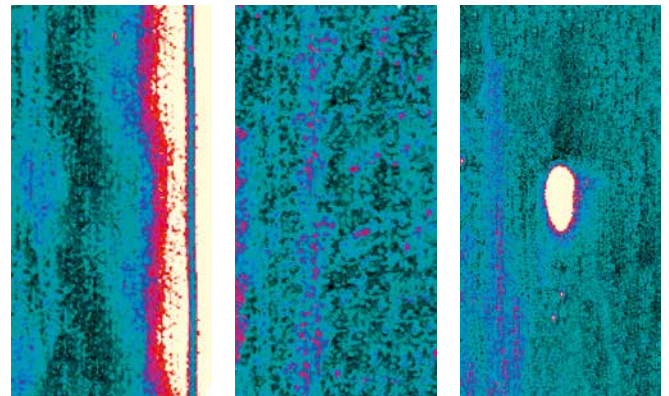
The result: increased profitability, optimized processing, reduced operating costs.

The Solution for Coating Color Insp



Principle

The monitoring of coating color is based on optical inspection with RGB camera and full visible spectrum LED illumination in reflection configuration. The acquired RGB data are transformed to the L*a*b* color space to guarantee an evaluation of results that corresponds to the visual impression of human eye. A super sampling of high resolution data enables a large area inspection and homogeneity control over the full coating surface without influence of smallest defects. Moreover color zebra and color deviations from nominal value can be recognized and computed in E as well as ΔC , Δa^* , Δb^* , etc.

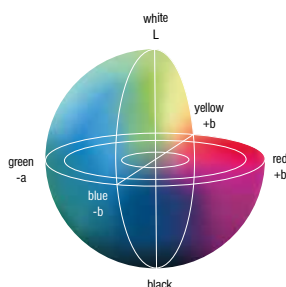


Principle

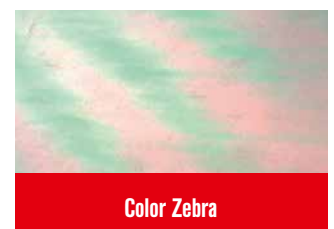
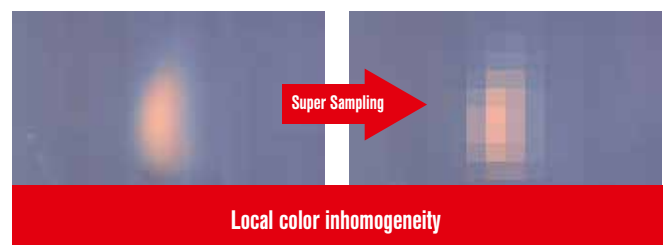
- Average value
- Standard deviation
- Min/Max/Range
- Histogram-based: Percentile / Median
- Sub sampling
- Image Pyramid

Advanced feature set

- RGB value
- L*a*b* value
- Delta values
- ΔE , Δa^* , Δb^*



Color Inhomogeneity + Col



Color Monitoring for Float Glass

Accurate. Reliable



Benefits at a glance

- Coating quality and process optimization
- No need for manual inspection
- Stand alone or integrated into FS-5D
- Maintenance without effort
- Ready for Industry 4.0

Applications

- Pyrolytic coating
- Sun and heat protection
- Self-cleaning
- Ribbon application
- Hot environmental conditions
- Non washed glass

Production + Coating Process Monitoring

Return **on investment** is achieved in the shortest time. **Get YOUR key to the future** – Ask for the details.

FS-STRESS

P²-SIZE

EPROMI

Stress Measurement

Cutting Control

Process Control

Shipping



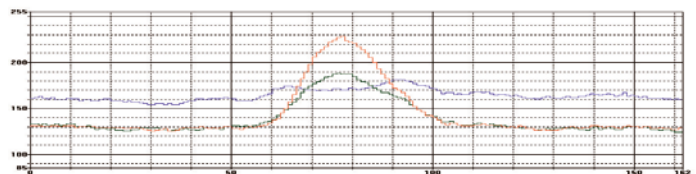
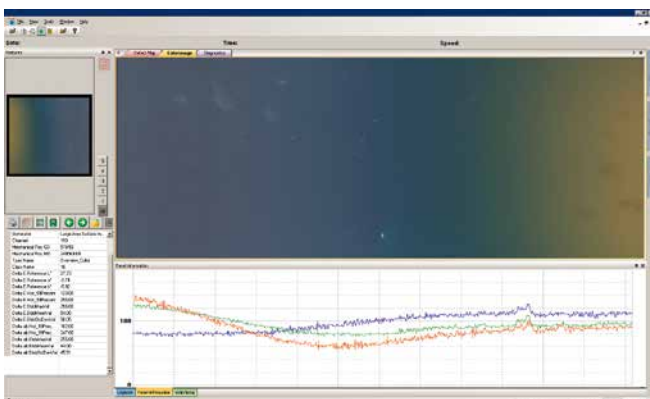
Benefits Color Monitoring

- Reduction of waste
- Homogenous color appearances
- Process control and optimization
- Automated fully integrated inspection

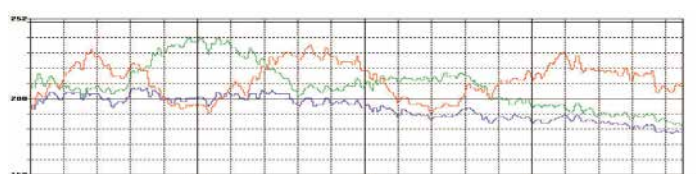
Features

- Color image with line profiles
- Color coded running map
- Monitor Master with color trends
- RGB and L*a*b* color space
- Customized quality grading
- Statistics and analysis tools for process optimization

Color Variation + Color Zebra

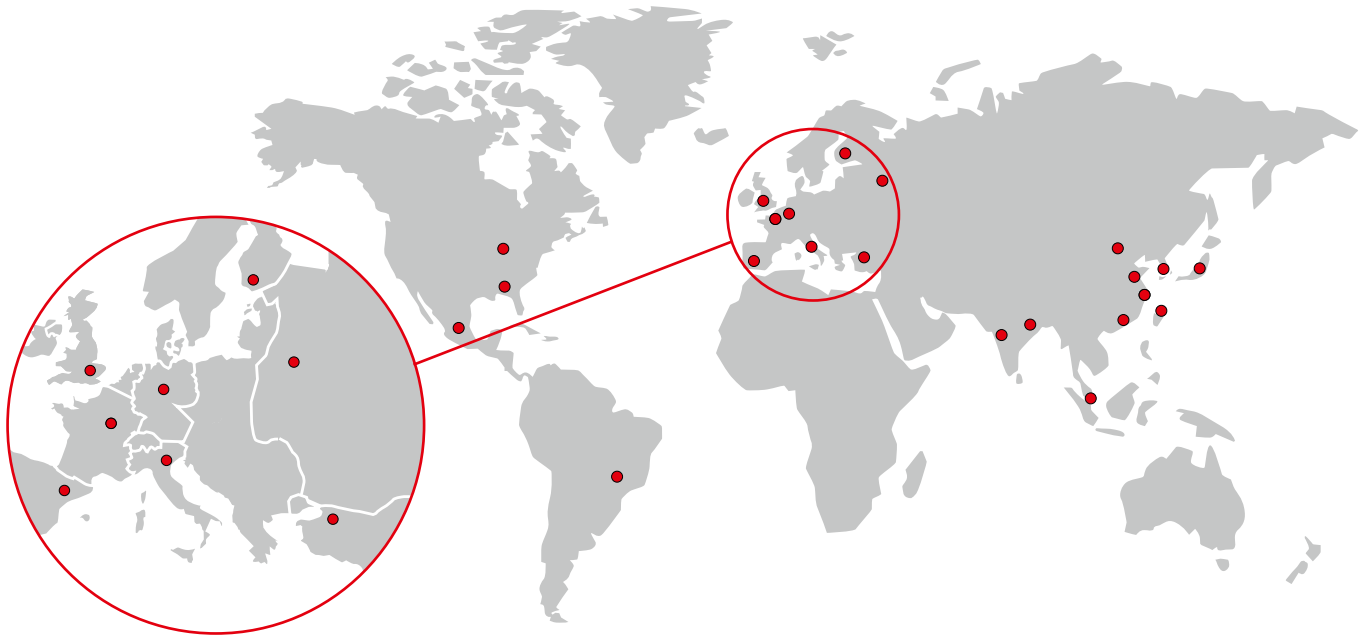


Local color inhomogeneity



Color Zebra

Innovations for Automated Optical Inspection



**We are the innovators in optical inspection.
Best practice. Best system. Best service.**

For over three decades, ISRA VISION has become a leading manufacturer of highly accurate automated optical quality inspection systems.

More than 10,000 successful applications reference our sustainable experience in the field of machine vision products – and our ability to innovate.

Today our products are operating worldwide in such industries as glass, plastics, foils, print and automation. It is our goal to set system standards for total process control in these industries.

Customers choose ISRA for the ability to develop products consistently to their requirements. More than 900 employees at 25 locations worldwide are working to contribute to your success.

Your global partner for surface inspection.

We offer our experience and a highly qualified team of experts to design and implement solutions for advanced applications.

We assure that our mission continues beyond our shipping dock. Just challenge our Customer Support and Service Center (CSSC).

We guarantee excellence to our customers – from consulting to service, from tailored solutions to worldwide support. We can make your business more competitive.

**Challenge Us.
Inspect to Control – with ISRA VISION**

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