

SEE THROUGH BLACK

***WELCOME TO THE DARK SIDE
OF SORTING POWER***



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**“Let’s tackle on of
the biggest blind
spots in recycling:
how to detect and
sort black plastics”**



Our mission:

**Make materials visible
and classifiable in real
time, directly on the
production line.**



The result?
Higher value, fewer mistakes
and more sustainable use of
resources

So why are black plastics so hard to detect?



Carbon black absorbs light in the near infrared.

For standard HSI cameras a black item is not visible.

This leads to mis-sorting, lower purity and higher costs.

Our solution



BlackEye sees
what others miss.

Our answer is BlackEye Gen2:

- Works in the mid-wave infrared.
- Polymers reveal their unique chemical vibrations.
- Clear differentiation, even with jet-black materials.

BlackEye Gen2 brings that capability to industrial speed and scale:

Robust, stable and ready for conveyor integration.



Product Highlights:

- High spectral fidelity with dense information across MWIR range.
- A cooled detector for signal stability
- Throughput designed for conveyor line speeds.
- Open interfaces like GigE Vision and SDKs, making integration straightforward.

Applications & Comparison

- Sorting black polymers like PE, PP and ABS.
- BlackEye isn't meant to replace near-infrared systems – it complements them.



What's new in Gen2?

- Improved signal-to-noise and thermal stability
- Easier alignment and calibration
- More compact and service-friendly
- Tighter perClass integration

What does this mean to operators?

- Higher bale value thanks to cleaner black fractions
- Less manual rework and fewer rejects
- And a retrofit path: existing lines can be upgrade to unlock black sorting without a full replacement

All backed by our application engineering and lifecycle services.

Send your sample:

**If you'd like to see it in
action, just send us
your polymer mix and
throughput targets.**



Test your
sample for
free at
inno-spec.de

Thank you for your attention!

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