

## PURITY SCANNER ADVANCED

Inspection and sorting of plastics materials

The purity of the material, as it is used for the medical sector, during the tape extrusion, in the aerospace and automotive industry or during the production of demanding cables, is an essential criterion for the quality of the end product. Therefore, the production and usage of most pure material is of utmost importance.

The PURITY SCANNER ADVANCED is a unique system for 100 % online inspection and automatic sorting of plastic pellets.

## Pure material. Highest quality.

From production and compounding to the processing of injection molded parts, profiles or films, the purity of the plastic pellets has the highest priority for the polymer industry. This is the only way to guarantee the highest quality of the end product.

### 100 % online inspection and sorting

SIKORA's PURITY SCANNER ADVANCED inspects 100 % of plastic pellets online and automatically sorts out contaminated individual pellets from 25 µm upwards. The system combines X-ray technology with a flexible optical system. In addition to the X-ray camera, up to three cameras can be installed depending on the expected contamination and application. All types of pellets are reliably inspected. The X-ray camera detects metallic impurities in the pellet and on its surface. Color deviations in transparent or on translucent and colored raw materials are detected by the optical cameras. Contamination are automatically sorted out, thus ensuring material quality.

### Specifications

<b>Application Fields</b>	<ul style="list-style-type: none"> <li>- Raw material production</li> <li>- Compounding / Masterbatch</li> <li>- Plastics processing</li> <li>- Extrusion</li> <li>- Outsourced sorting</li> </ul>
<b>Inspection Methods/Sensor Technologies</b>	X-ray and optical cameras
<b>Smallest Detectable Contamination Size</b>	X-ray: 50 µm (cube 3D), 50 x 50 x 50 µm Optical: 25 µm (square 2D), 25 x 25 µm
<b>Throughput</b>	Depending on geometry and specific weight of the material to be inspected, there are throughputs possible from a few kilograms up to one ton/hour* per device. A combination of devices allows for the inspection and sorting of higher throughput capacities.
<b>Permissible Ambient Temperature</b>	+ 5 to + 45 °C
<b>Air Humidity</b>	max. 95 % (without condensation)
<b>Interfaces</b>	RS232, USB Optional: industrial fieldbus (e.g. Profinet IO, EtherNet/IP, Profibus-DP, CANopen, DeviceNet), LAN, OPC DA/UA
<b>Power Supply</b>	3 ph 400 V AC (± 10 %), 50/60 Hz (± 3 %); 2,700 VA Compressed air supply: min. 6 bar / max. 8 bar / Air quality class 3 (ISO 8573.1)
<b>Dimensions</b>	2,068 x 1,499 x 641 mm (width x height x depth)
* This refers to a system with optical inspection. Systems that combine optical and X-ray technology provide a throughput up to 600 kg/hour per device.	

### Your advantages

- Ensures a constant material quality

- Recovers off-spec batches
- Minimizes the risk of claims
- Specifically tailored to the plastics market
- Secures a strong competitive advantage

## Technical articles

[Combined X-ray and optical pellets inspection for smallest impurity detection during plastic pellet production and processing](#)

[“The PURITY SCANNER is currently the most accurate sorting equipment available on the market” – Success Story Minger Kunststofftechnik AG](#)