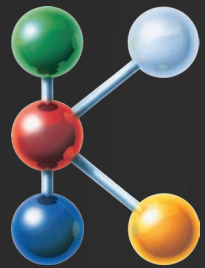


SIKORA EXTRA

Your magazine for Inspection | Sorting | Analysis

@



Hall 10
Booth F14



VISIT US AT K 2022

SIKORA at K 2022

04

Live pellet testing with the
PURITY CONCEPT V

06



Dear readers,

Finally, we are able to get together again! We are delighted that the long wait is now over and that the K is just around the corner. From October 19 to 26, 2022, the leading trade fair for the plastics and rubber industry will open its halls for its international audience. SIKORA, of course, will be on-site in Düsseldorf. We cordially invite you to visit us at our booth F14 in hall 10.

Come and see for yourself our pioneering inspection, analysis and sorting technologies for the plastics industry. In this issue, we will give you a preview of our booth's highlights. This includes our PURITY CONCEPT V laboratory inspection system, which you can test live on site at K. The device is characterized by its versatile applications: it inspects not only pellets or flakes, but also test plates in a matter of seconds.

In addition, we will show you how our PURITY SCANNER ADVANCED can be used for inspection and sorting of rPET. Furthermore, we will introduce our SIKORA Premium Service.

We look forward to welcoming you in person at the K and speaking with you about our technical projects. Until then, I hope you enjoy reading this issue!

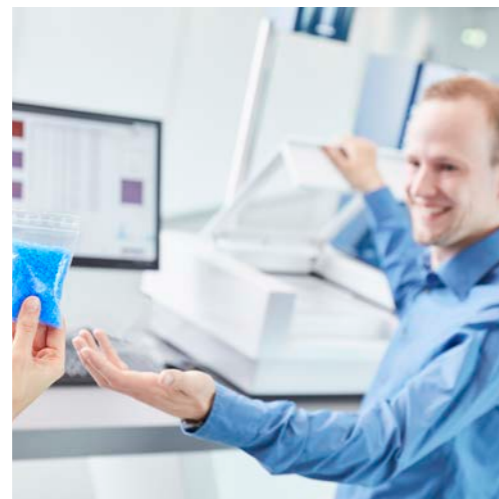
Sincerely,

Dr. Christian Frank
CEO SIKORA AG

CONTENT



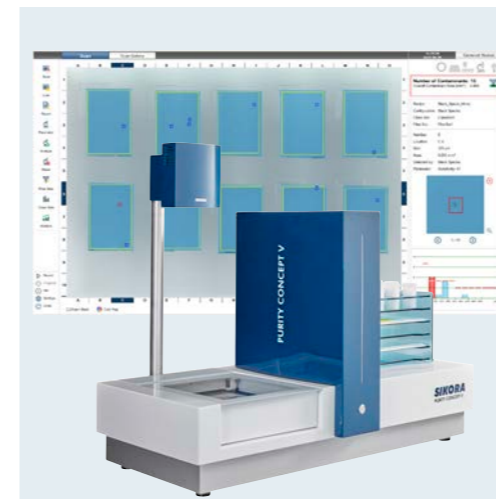
04 – SIKORA at K 2022



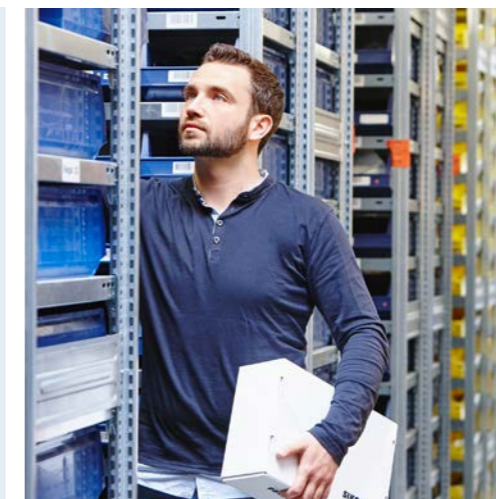
06 – Live pellet testing with the PURITY CONCEPT V



07 – PURITY SCANNER ADVANCED: Sorting rPET material



08 – PURITY CONCEPT V: Test plates inspection and analysis



10 – SIKORA Premium Express Service



11 – Raffle

SIKORA AT K 2022

Pulse of a new generation

The focus of SIKORA's trade show appearance at K 2022, from October 19 to 26, 2022, will be the PURITY SCANNER ADVANCED. This device includes three optical cameras and one X-ray camera for highest performance in the inspection and sorting of plastic pellets. Additionally, visitors are invited to inspect and analyze brought pellets on-site with the PURITY CONCEPT V laboratory testing device. As savings are part of the SIKORA technologies, visitors will learn how they can save material, costs and CO₂ in their extrusion line. The appearance of the Bremen-based company at the K promises pure innovation and sustainability.



Live material tests with the PURITY CONCEPT V

For random sample inspection of plastic pellets or test plates for speck analysis, SIKORA presents the PURITY CONCEPT Systems with optical inspection (PURITY CONCEPT V) or X-ray analysis (PURITY CONCEPT X). Within a few seconds, depending on the system, the test material is inspected for metal contamination or optical deviations. Impurities are automatically detected, visualized and statistically evaluated. In a laboratory environment, live material tests with the PURITY CONCEPT V are offered at the SIKORA booth. Further information on page 6.

Novelty: PURITY SCANNER ADVANCED with three innovative 25 µm high-resolution black and white cameras for inspection and sorting of pellets

With the PURITY SCANNER ADVANCED, SIKORA offers a modular system for the flexible optical online inspection and sorting of plastic material. Thanks to the modular concept, different camera types can be used depending on the inspected material. In addition to optical 25 µm (1 mil) high-resolution cameras, which detect black specks and discolorations, an X-ray camera can be installed to detect metallic contamination. "By using a third black and white camera in the PURITY SCANNER ADVANCED, a significantly higher detection rate is achieved, so more contaminants are detected. This is unique with our system," explains Ralf Kulenkampff, Head of Sales – Plastics.

The PURITY SCANNER ADVANCED automatically sorts out detected contamination via a blow-out unit. For the optimization of the by-catch, SIKORA has developed the "hybrid blow-out" feature. The customer can define in advance which contaminants in the material are uncritical and select a smaller blow-out unit for these, reducing their by-catch.

The SIKORA Service: Also represented at our booth

Maintaining the availability and efficiency of the SIKORA systems at the customer's site is SIKORA's top priority. At the K, the SIKORA Service team presents the entire range of its Service portfolio. From installation and commissioning of the devices to, consulting and training, our Service staff is always ready to meet the individual customer's needs.

FREE MATERIAL TEST LIVE AT THE K

Bring your plastic pellets to the SIKORA booth 10 F14 and get a live analysis free of charge

Would you like to know how our inspection system works, whether it is suitable for your plastic pellets and what advantages it has? Then come test it. Visit SIKORA at K 2022 at our booth 10 F14. We inspect and analyze up to three pellet samples free of charge with the PURITY CONCEPT V. We will discuss the results with you directly at our booth, or send them to you confidentially.

Did we catch your interest?

- 1 Fill up to three samples per 100 g of your pellets.
- 2 Bring the samples with you to K in Düsseldorf - it is best to make an appointment at sales@sikora.net.
- 3 You will receive your free analysis directly on site at K 2022, or we will send it to you confidentially.

Do you have any questions? Feel free to contact us at +49 421 48900 0 or sales@sikora.net. You can also visit our website www.sikora.net for further information.



Live analysis at K 2022 with the PURITY CONCEPT V

SORTING RPET PELLETS WITH THE PURITY SCANNER ADVANCED

Highest material purity ensured

Regardless if it's small burns or critical metal contamination, SIKORA's PURITY SCANNER ADVANCED reliably detects impurities and sorts them out automatically so that only pure material enters the next phase of the production process. The inline inspection and sorting system is also the right choice for quality control of recycled rPET.

Burns such as black specks or even slight yellowing frequently occur on the surface of recycled PET pellets during the manufacturing process. In addition, production-related metal impurities can occur, which can endanger the functionality of the final product. SIKORA's PURITY SCANNER ADVANCED combines high-resolution black-and-white cameras with an intelligent, homogeneous illumination of blue light, so that even smallest burns from 25 µm (1 mil) and very pale yellowings are reliably detected. Depending on the application, an X-ray camera can also be combined, which detects metallic impurities inside the pellets.

The system can be easily integrated into any production line thanks to a universal connection. The rPET pellets are conveyed via a stainless-steel vibrating chute, which is perfectly matched to the material properties of the rPET. Due to its heaviness and high density, the recycled PET exhibits very good conveying characteristics, so, depending on customer requirements, a flexible throughput of between 500 kg to well over one ton can be achieved. Furthermore, the rPET pel-

lets fall evenly from the vibratory chute down the inspection area, so that optimal conditions exist for optical inspection from the various camera viewing angles. Due to the modular approach, the PURITY SCANNER ADVANCED allows the customer to choose between two or three optical cameras and one X-ray camera – depending on the requirements. Especially for covered recycled PET, a 3-camera solution is a good choice, because it detects more contaminants and is characterized by a higher detection rate than the 2-camera systems commonly available on the market.

SIKORA also offers the possibility to adapt the by-catch to the respective customer application during the sorting process. A larger blow-out unit can be specified for rarely occurring, larger burns or for critical metal contamination than for small, light yellowing, which occurs very frequently with rPET. Likewise, PET bottles with a 30 % rPET content, for example, have different quality specifications than a bottle made from 100 % recycled material. With the PURITY SCANNER ADVANCED, the by-catch can be intelligently optimized according to requirements and the application, resulting in more efficient and sustainable production.

Innovative concept: a vibration chute made of stainless steel – perfectly matched to the rPET material properties



TRUST IS GOOD, CONTROL IS BETTER

Semi-automated inspection of test plates with the PURITY CONCEPT V

The use of test plates for the determination of the speckle index is a common method on the market for quality control of the pellets to be processed. Until now, the speckle index is performed manually by an inspector, who counts the number and size of the detected impurities on the plate. SIKORA's PURITY CONCEPT V serves as a supporting tool, which increases the reliability of the test method and offers a standardization of the tests.

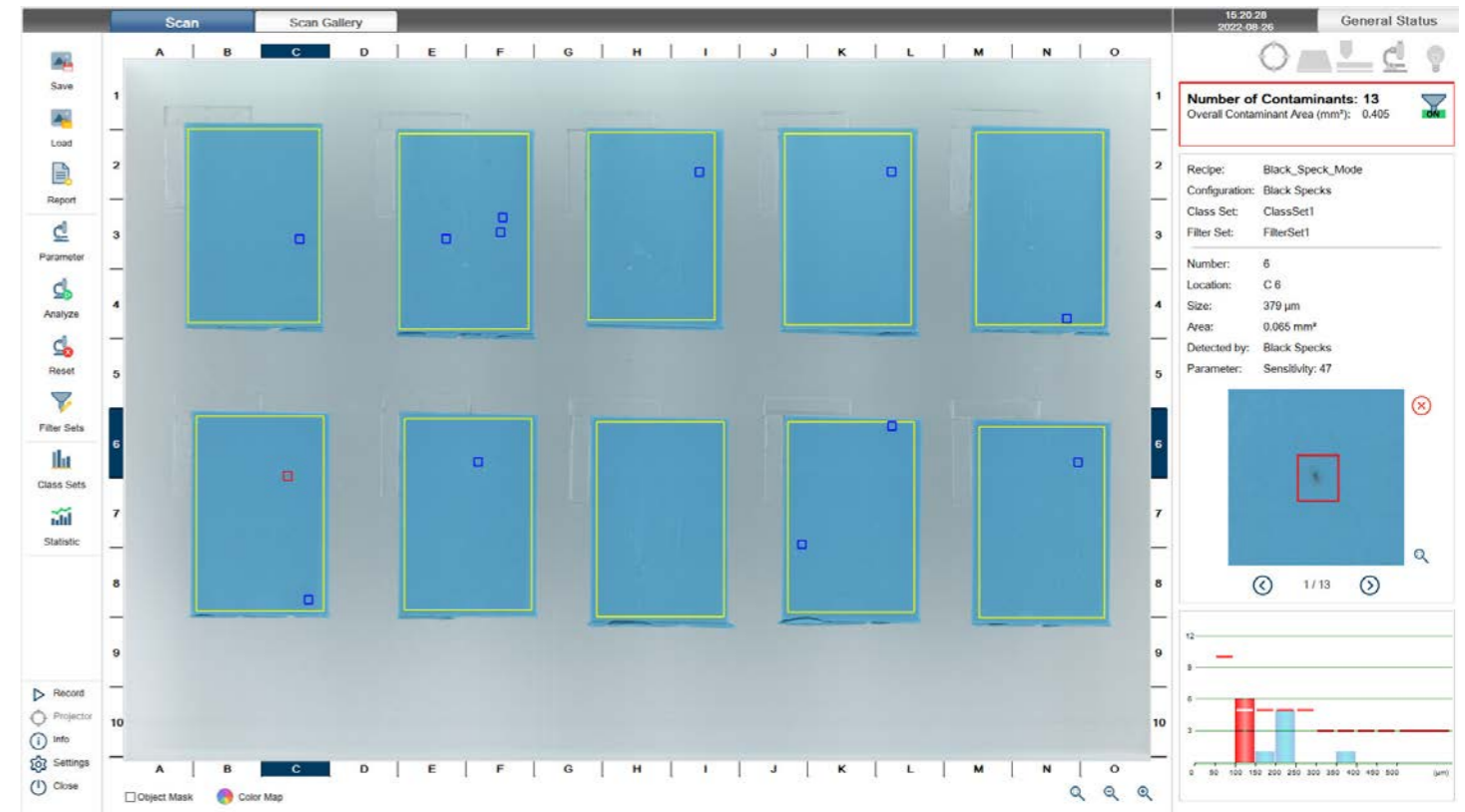
The PURITY CONCEPT V enables the tester to check his results at any time in a semi-automated process. For this purpose, he places the examined test plates on the sample carrier of the laboratory testing system and starts the testing process. In 30 seconds or less, the test plates are inspected and analyzed by a color camera. Even the smallest contamination from 50 μm (2

mil), where the human eye quickly reaches its limits, are reliably detected and optically highlighted on the monitor image as well as on the sample tray. This simple and fast double check avoids false detections. This not only spares the inspector's eyes and saves time, but also increases the reliability of the inspection method and ensures the reliability of the results.

Especially for the application area test plates, SIKORA has further optimized the analysis process by an intelligent combination of technology and software:

- A uniformly defined illumination, adapted to the test plates, ensures identical general conditions, independent of location. Small auxiliary elements, which are glued onto the specimen carrier, also allow for a routine, fast

Clear display of detected contaminations – Inspection within a few seconds – Detection from 50 μm



placement of the test plates by the tester at the same location again and again.

- The software allows easy creation of targeted recipes depending on the size of the platelets to be examined. This means that only contamination located within the defined areas – i.e., on the test platelets themselves – are examined. Other contaminants, such as dust grains on the sample tray, are not considered in the analysis.

The resulting standardization of the process enables fast, uniform control of the speckle index test at different locations. The PURITY CONCEPT V offers a considerable time-saving in the analysis of the platelets. It provides the highest quality and guaranteed comparability, as well as reproducibility of the results, which a purely manual quality control cannot offer.

SIKORA PREMIUM EXPRESS SERVICE

Delivery of spare and wear parts in record time

At SIKORA, the satisfaction of our customers is our top priority. Our devices continue to provide accurate measuring results even after many years. To keep it that way, we offer the SIKORA CARE PACKAGE. Maintenance and calibration according to international standards help to prevent downtimes and to maintain the quality assurance of your production.

As part of our maintenance programs, SIKORA also takes care of the professional replacement of wear and spare parts.

Premium Express Service

On request, we also deliver spare and wear parts directly to our customers' facilities. And since we at SIKORA know how important quick assistance is, we offer the Premium Express Service.

Customers who need a spare or wear part quickly can request a corresponding quotation from

their service contact. Within Europe, shipping is possible within 1-2 days after quotation approval.

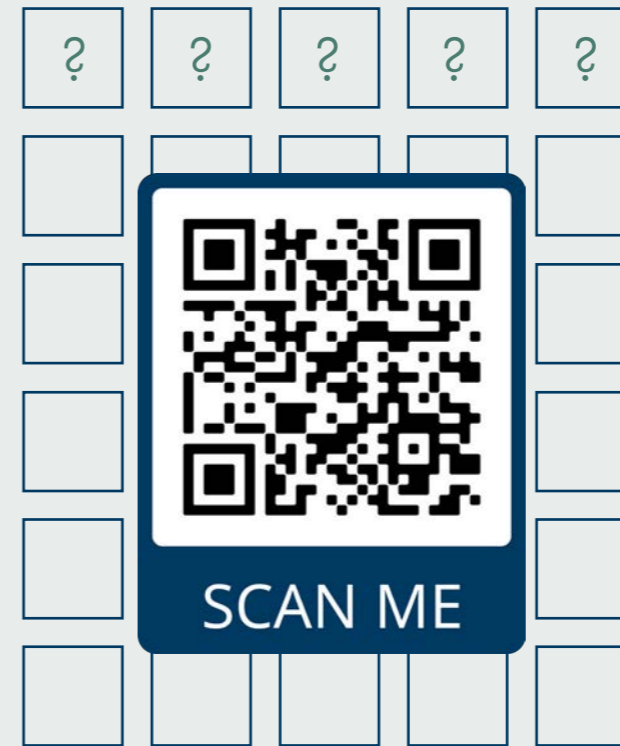
We have many spare parts in our expanding inventory and can get them on their way to our customers within a few hours. Parts that need to be specially prepared for use in our complex measuring, control, inspection, sorting and analysis systems can be shipped within 24 hours after order confirmation.

We will be happy to meet your individual shipping needs.

If you are interested in our Premium Express Service, please contact your SIKORA service representative or contact us directly at service@sikora.net or +49 421 48900 50.



RAFFLE



Wordle!

Five letters – six attempts.

Can you find the secret word? Simply scan the QR code or follow the link <https://l.ead.me/sikora-wordle-en> and start playing.

To participate, email your solution to us by Nov 31, 2022: extra@sikora.net


You can win one of three Toshiba Canvio Ready hard drives with 1 TB of storage.





Your contact details will not be passed on to third parties. Each correct answer takes part in the raffle. SIKORA employees and their relatives are excluded from participation. Each player can only participate once. We value the first email, all subsequent emails will be considered invalid. The legal process is excluded.

GOOD LUCK!

NEXT EVENTS

 • K | Oct 19-26, 2022 | Düsseldorf, Germany

 • Compounding World Expo | Nov 09-10, 2022 | Cleveland, OH, USA

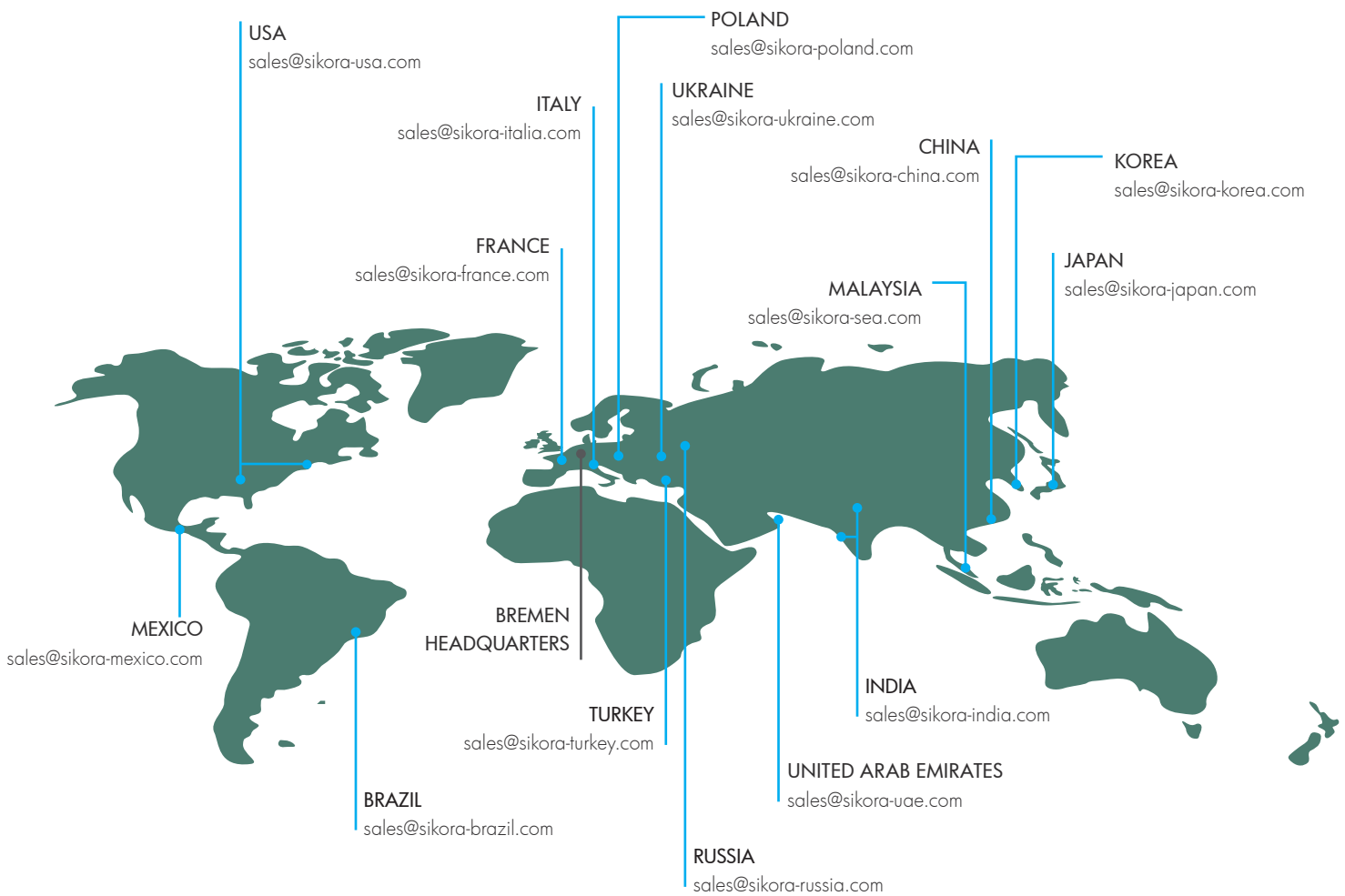
 • Extrusion 2022 Conference | Dec 06-08, 2022 | Charlotte, N. C., USA

Sustainability at SIKORA
Our environment is important to you, but you do not want to do without the informative SIKORA EXTRA articles? Register today at extra@sikora.net and receive the SIKORA magazine conveniently via email instead of printed material.

SIKORA

Technology To Perfection

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