

QualityOn

Efficient online quality measurement.

Directly in the recycling process.

- QualityOn:Polyscan
- QualityOn:Colour
- QualityOn:MVR
- QualityOn:IV

QualityOn.

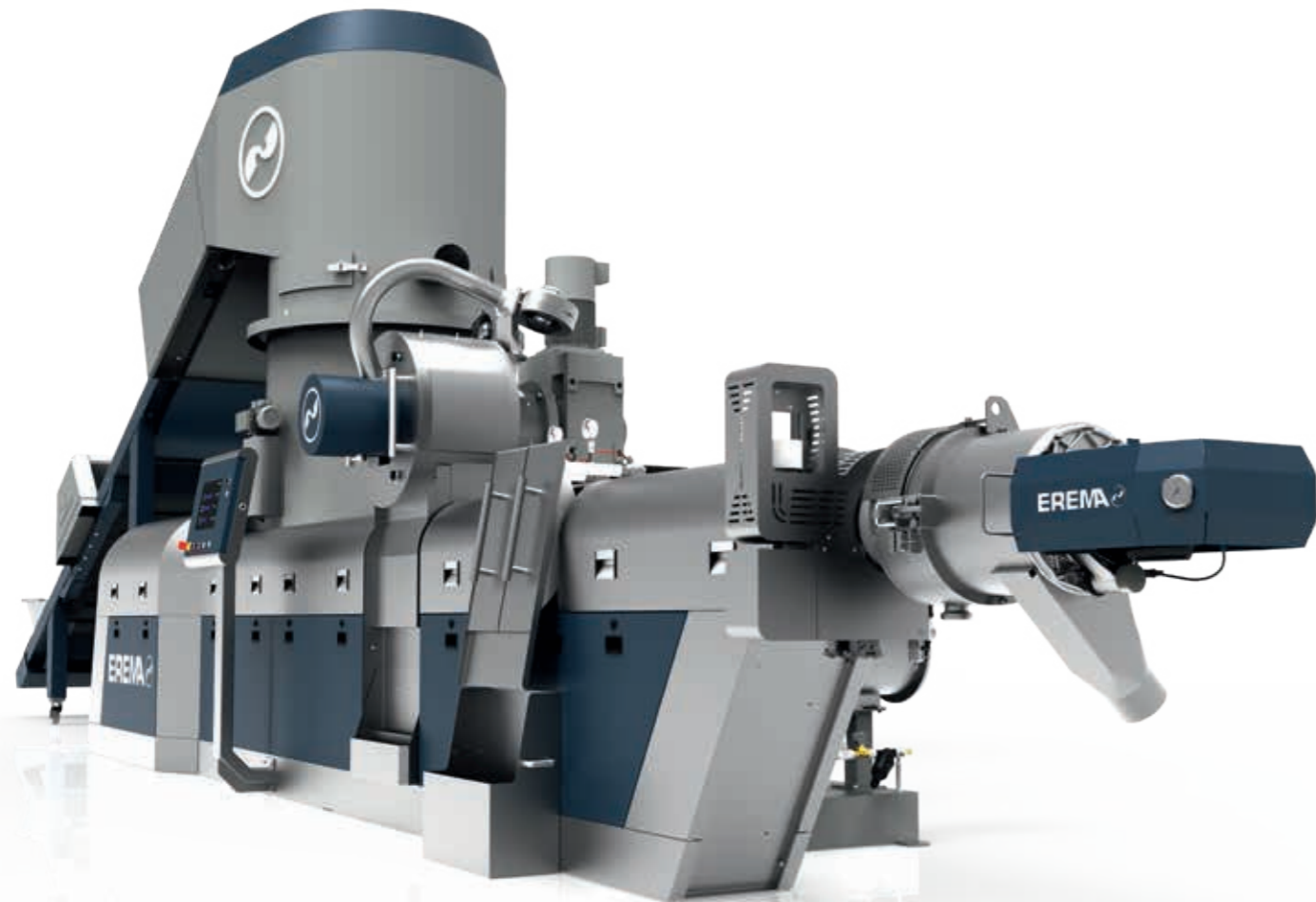
Measure online. In a new quality.

The demand for quality in plastics recycling is increasing constantly. The driving forces behind this are the increasing requirements of the circular economy and the necessity to use higher proportions of recycled pellets in new products - even if the quality of the input material is poorer. The demand is for recycled pellets with a quality that is not only high, but consistently high.

With this in mind, QualityOn redefines the **standard for monitoring quality**. Thanks to innovative EREMA online measuring systems, you are immediately informed during the actual process about the MVR, IV and colour values as well as the polymer composition of the input material, and not afterwards in the laboratory.

Quick recognition, quick reaction

You are notified automatically as soon as the values measured leave the defined tolerance range and can then take remedial action in the process at an early stage – or remove any defective material immediately from the current process. This ensures that you and your customers have recycled pellets with consistent properties. **For more quality and higher process stability.** Another bonus: QualityOn saves a great deal of time and work compared to conventional laboratory methods.



QualityOn.

Redefining measurement standards.

- **Continuous quality monitoring** during the process at the machine - and not later in the laboratory
 - Polymer and filler composition of input material
 - MVR value (Melt Volume Rate)
 - Colour value (L*a*b* colour space)
 - IV value (Intrinsic Viscosity)
- **Quality under control:** consistent regranulate properties, controlled process quality
 - Permanent quality control, fast detection of deviations from the target specification and fast reaction
 - **Notification** when leaving the defined tolerance range
 - Option: Integration of a **diverter for immediate removal** of faulty material or for sorting into various quality grades
- **Saves time and personnel:** Compared to the manual laboratory method, QualityOn saves a considerable amount of time and work
- **Robust, simple** and reliable operation of the measuring units
- Matched to the **increased requirements in recycling**



BluPort®

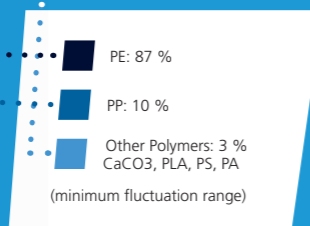
QualityOn & BluPort® – Quality data on your smart phone

Get even more out of your QualityOn data - with BluPort®, the digital platform with many useful assistance systems for more machine performance (optional).

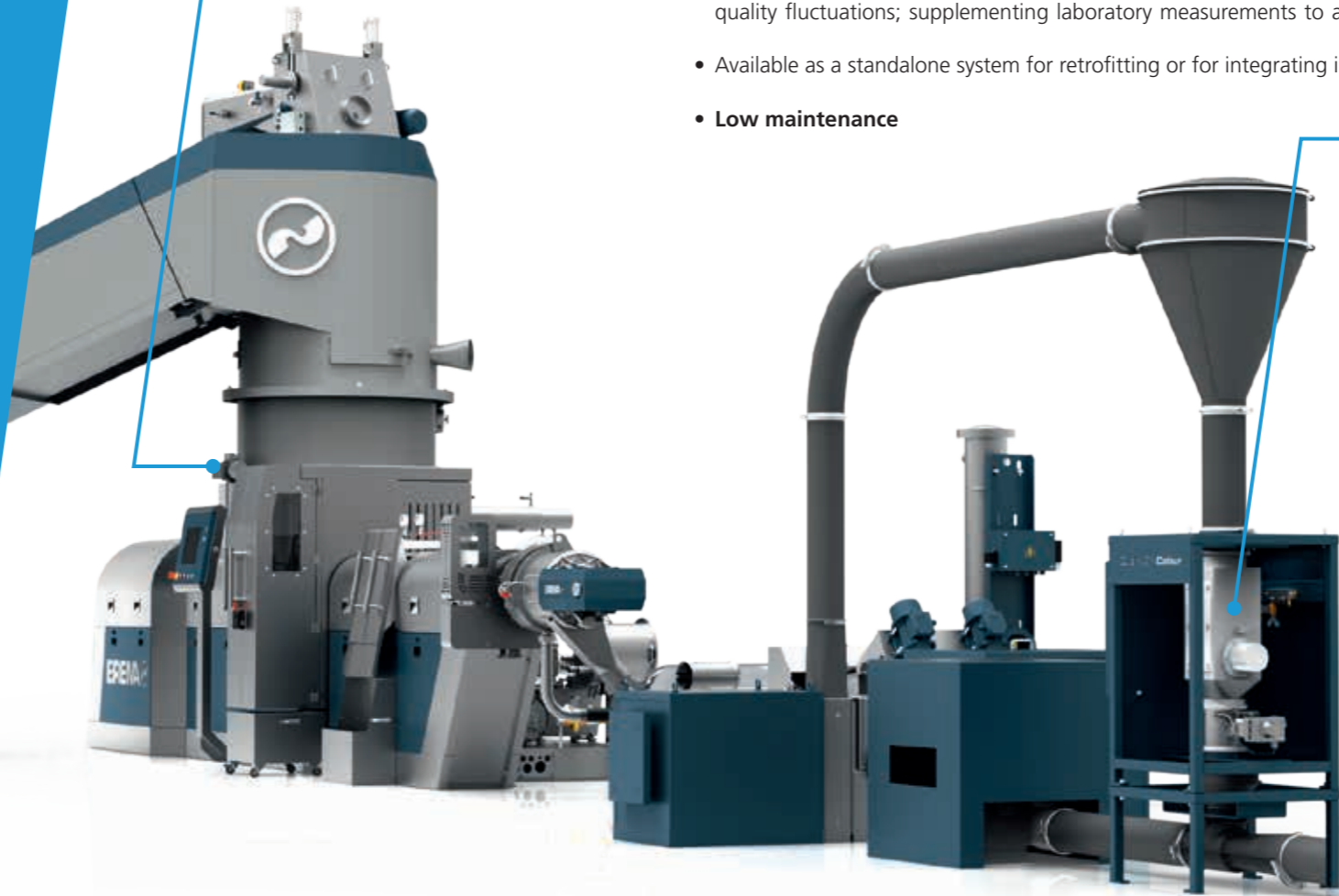
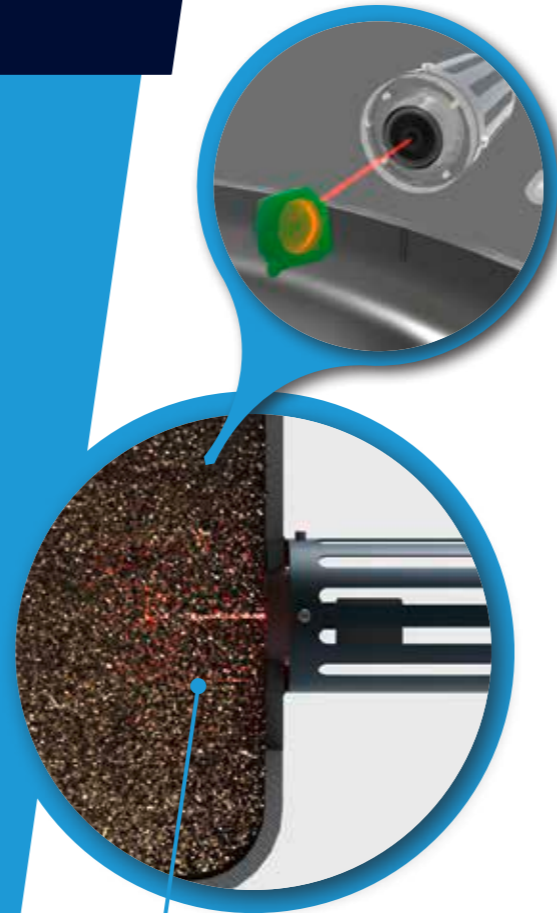
Thanks to the optional BluPort® apps, the values measured online on the machine for polymer composition, pellet colour, melt flow rate (MVR) or intrinsic viscosity (IV) are visualised, processed and saved transparently and clearly.

QualityOn:Polyscan

- **Online measurement of the polymer composition of the input material in real-time directly at the Preconditioning Unit (PCU).** The result is a qualitative statement about the material composition.
- **Stable input for stable output:** The patented concept enables early detection and reaction to deviations of the input material composition from the required specification
- Thanks to the early detection of relative quality fluctuations, QualityOn:Polyscan is used to **monitor the extrusion process** and supplements laboratory measurements. This information can also be used to optimise upstream process steps such as sorting and washing. This makes the entire process more efficient.
- **RAMAN spectroscopy** is used to record material information periodically. The interaction between laser light and material reliably determines a change in the material flow in the PCU
- **Suitable for all thermoplastics;** excluding very dark and black input materials
- Permanent quality control: **Visualisation at the EREMA machine** and a message is generated when leaving the adjustable polymer composition tolerance range (subject to minimum fluctuation range)
- **Sorting qualities** possible due to downstream regrulate diverter (optional)
- **Ideally adapted to the PCU,** thanks to patented EREMA technology
- **Reliable system** based on long-lasting laser technology
- Available as a standalone system (incl. visualisation) for retrofitting or for integration in a new machine.
- **Convenient and efficient - polymer composition on your smart phone:** Even better visualisation, processing and storage of your online measured polymer composition values with the practical EREMA BluPort® app (optional)

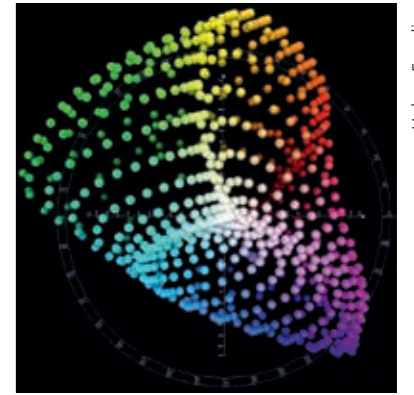


Example BluPort® app for QualityOn:Polyscan
Very practical: The polymer composition data of the input material measured online in the INTAREMA® machine's Preconditioning Unit can be clearly visualised on a smartphone, tablet or desktop PC.

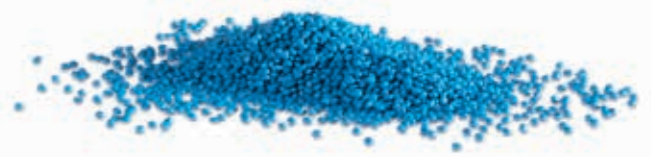


QualityOn:Colour

- **Precise online measurement of pellet colour** in real time, directly at the machine
- **Online spectrophotometer detects the slightest differences in colour:** High-resolution grid spectrometer ensures reliable detection of the smallest differences in colour that are not visible to the human eye – this means the information is available long before limit values are reached.
- **Reliable and stable system** based on long-lasting LED technology
- **Practical teach function** enables easy and quick learning of the desired production in line with the current colour
- A signal is given if the colour is not within the **defined tolerance range**
- **Perfect deflector setting:** recycled pallets with the "wrong colour" are deflected out until production has become stable again – this means that a light production colour is not contaminated with darker material
- **Visualisation of colour values:**
Standard: the **practical trend display on the machine** gives you a quick picture of time-dependent colour deviations
- **Convenient and efficient - colour values on your smart phone:** Even better visualisation, processing and storage of your online measured pellet colour values with the practical EREMA BluPort® app (optional)
- QualityOn:Colour **optimises the process** thanks to the online detection of relative quality fluctuations; supplementing laboratory measurements to a great advantage
- Available as a standalone system for retrofitting or for integrating in a new machine
- **Low maintenance**



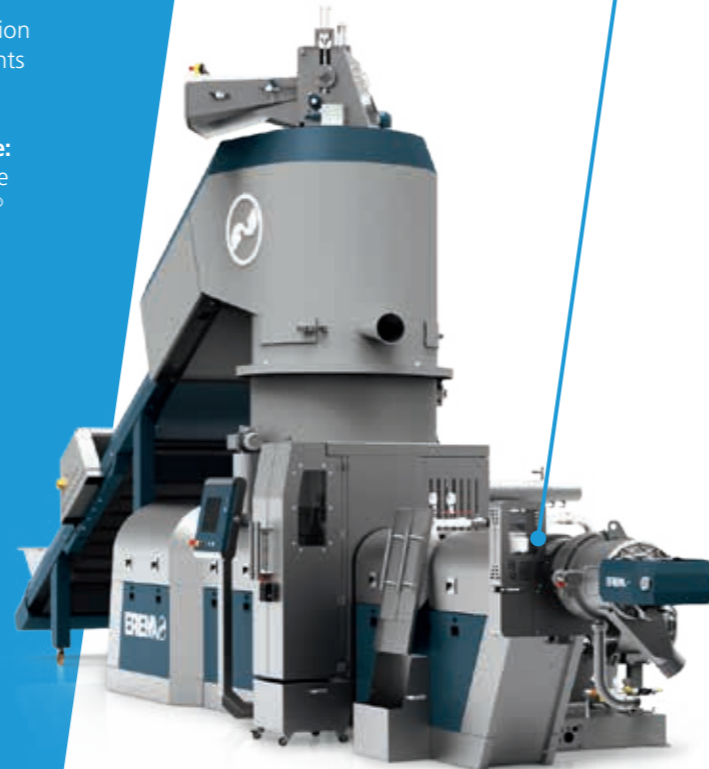
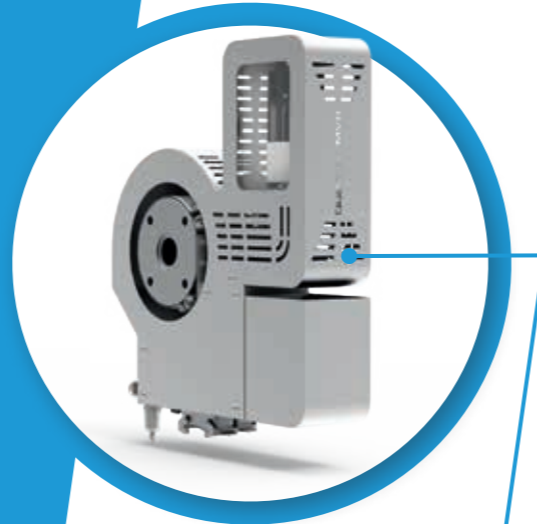
The function of the QualityOn:Colour spectral photometer is based on the worldwide uniform L*a*b* colour space.



Holger Everding

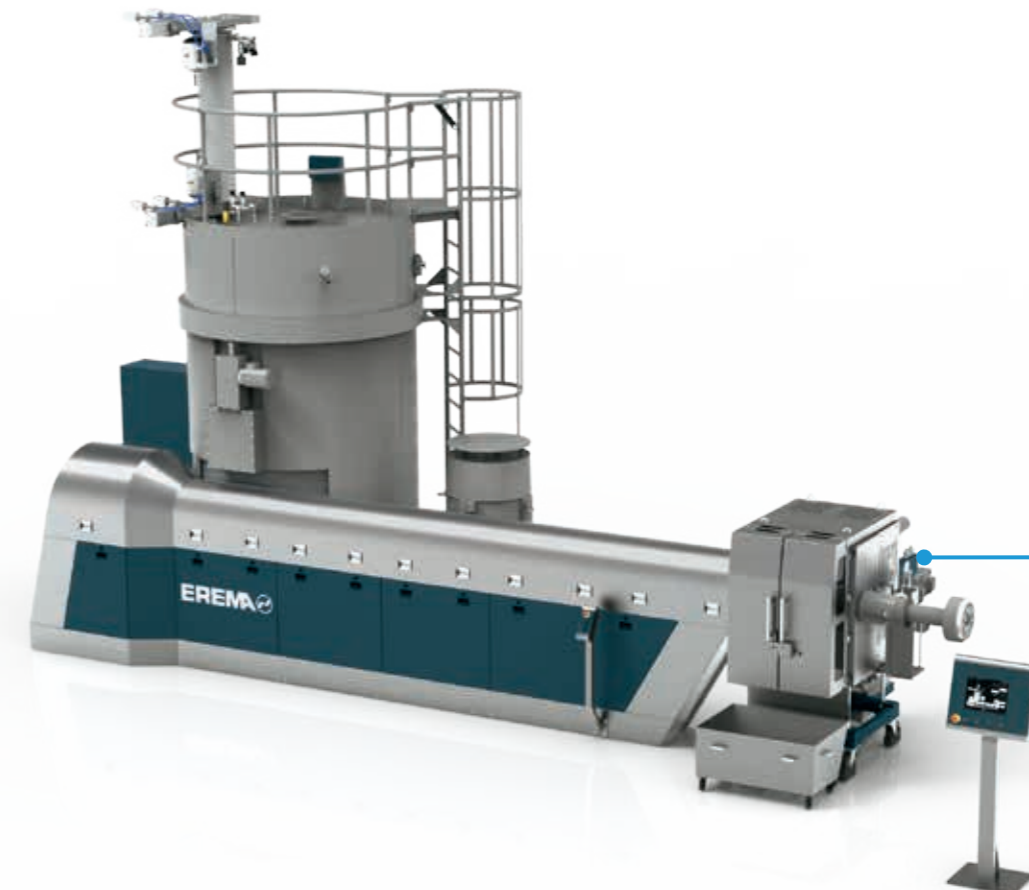
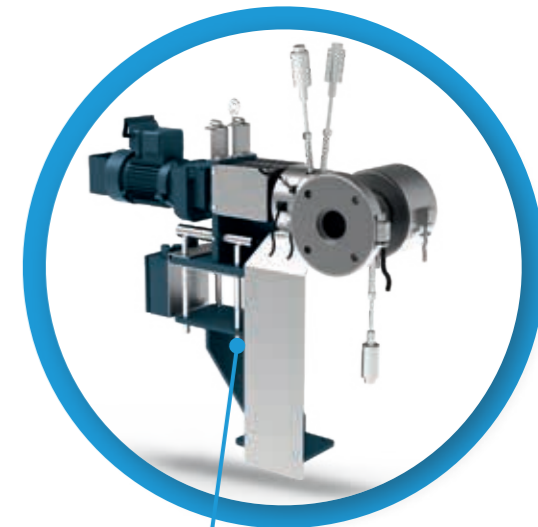
QualityOn:MVR

- **Continuous online measuring of melt volume-flow rate (MVR)** in real time directly at the machine.
- Automated measuring process **based on standardised laboratory method.**
- **Straightforward and robust** system
- **Designed especially for recycling:** unlike well-known online viscosity measuring systems which use gear pump technology and are designed primarily for clean polymers in the virgin material sector, the QualityOn:MVR measuring unit is designed especially for the higher requirements of recycling processes. It is, for example, insensitive to extremely small contaminant particles of 100-1,000 µm, which are common in post-consumer recycling.
- Sorting of **the material streams** according to different viscosity grades possible using downstream regranulate diverter (optional)
- **Exact and pertinent measured values**
 - **Representative measurement:** ingenious design ensures lowest possible influence of removed measuring charge on residence time
 - The innovative rinsing mechanism ContiFlush ensures that the measuring unit is cleaned quickly and thoroughly after each measuring process (regular cleaning depending on the material flow)
- QualityOn:MVR **optimises the process** thanks to the online detection of relative quality fluctuations; supplementing laboratory measurements to a great advantage
- **Convenient and efficient - MVR machine data on your smart phone:** Even better visualisation, processing and storage of your online measured MVR machine data with the practical EREMA BluPort® app (optional)
- Available as a standalone system for retrofitting or for integrating in a new machine.



QualityOn:IV

- **Continuous online measuring** of intrinsic viscosity (IV) in real time directly at the machine. The measured value is already the **final IV value which the finished pellets will also have.**
- **Permanent quality control** – visualisation of final IV value on the EREMA machine. If the value is outside the IV tolerance range a message can be generated/grade can be **sorted according to different viscosity grades** by means of a downstream recycled pellet deflector (optional).
- **Process quality assured** – **QualityOn:IV** enabled by the fully automatic control system, allows you to optimise a number of important processing parameters such as throughput, processing temperatures, filling levels, etc.
- Optimised design for **extremely easy start-up and maintenance.**
- QualityOn:IV **optimises the process** thanks to the online detection of relative quality fluctuations; supplementing laboratory measurements to a great advantage
- Available as a standalone system (incl. visualisation) for retrofitting or for integration in a new machine.
- **Convenient and efficient – IV values on your smart phone:** Even better visualisation, processing and storage of your IV values measured online on the machine thanks to the practical EREMA BluPort® app (optional)
- Required minimum filtration fineness 60 µm



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