

# Keeping track of water quality

## Online TOC and COD measurement for reliable wastewater monitoring in the paper industry



Drewsen Spezialpapiere is one of the leading manufacturers of specialty paper for technical applications, security documents, publishing paper, medical paper as well as printing and packaging paper. The company dates back to 1538. Today, it employs 420 people in production and administration at its site in Lachendorf.

"We opted for so many measuring points because we think it extremely important to always have a timely overview of our wastewater pollution and associated trends, so that we can identify and remedy faults in a timely manner. Endress+Hauser's analyzers have performed this task extremely well in recent years!"

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Production Engineer (Water)



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As a direct discharger, Drewsen Spezialpapiere (a producer of specialty paper) must ensure that its wastewater achieves a high degree of pollutant reduction.

**It is particularly important that direct dischargers always have reliable data relating to their wastewater load and are able to identify faults in a timely manner. That is why Drewsen Spezialpapiere opted to use both TOC and COD analyzers for wastewater monitoring.**

**The challenge** The Drewsen Spezialpapier factory manufactures security-related paper, which is used for example for deposit slips or insurance policies, greaseproof paper, food service paper, medical paper and much more. As a direct discharger, Drewsen Spezialpapiere must ensure that its wastewater achieves a high degree of pollutant reduction.

**Our solution** The paper factory deploys four CA72TOC analyzers: one in the wastewater pit of each of the three paper machines and one in the outlet leading from the biological wastewater treatment process to the drainage canal. Two CA80COD

analyzers are also used in the wastewater domain: one located downstream from the settling process and the other also located in the outlet of the biological wastewater treatment process and used alongside the TOC analyzer. It is important to the customer that there is redundancy in the online measuring system. In addition, it is beneficial to have two different measuring principles, since the individual measurement methods do not always perform equally well when it comes to recording all of the residual content in the low measuring range.

**Result** The arrangement of the analyzers ensures that the customer has a good overview of how the settling basins are working, of the decomposition capacity of the fluidized-bed biology and the effectiveness of the biofiltration system. This means that they can intervene immediately in the event of a fault.

The two independent measurement methods (TOC and COD) ensure that a meaningful value is always available. At the same time, the customer can check if their paper production process is functioning correctly.

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#### COD or TOC measurement?

There are advantages to both methods:

#### COD measurement with Liquiline System CA80COD

- Long-established, standardized laboratory method integrated into a field device.
- No correlation required, immediate output of COD value required by regulatory authorities for outlet monitoring.

#### TOC measurement with CA72TOC

- Fast online measurement with a valid measured value output every 10 minutes ▶ Rapid detection of faults.
- No other reagents required, other than to acidify the sample ▶ Reduced maintenance.



Liquiline System CA80COD.



Both CA72TOC analyzers in use in outlet of biological wastewater treatment process.

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