

The green gene of OptiSense:

Resource efficiency becomes a competitive advantage

Rising material and energy prices as well as costs for scrap and disposal make the efficient use of resources an economically attractive challenge for coating companies.

Test and measurement technology can make an important contribution to resource efficiency. The interview with OptiSense Managing Director Dr. Jens Heymans shows the potential and also gives a glimpse into the company's green ideas.



OptiSense systems for coating thickness measurement help you to implement your customer's requirements perfectly and at the same time optimize your energy and resource management.

Dr. Heymans, please tell us about the basic question first: What are the general challenges the coating industry is facing in regards to resources?

The prices for oil, gas and electricity are currently reaching record levels, putting the topic of energy saving in a new light. Low energy consumption offers not only ecological benefits, but above all economic advantages for companies. The focus today and in the future is therefore on resource-efficient production technologies that protect the environment and contribute to

competitiveness. For companies, the spare use of raw materials as a strategic goal represents an opportunity to save costs, avoid scrap and protect the environment by conserving resources.

By the way, coating companies from the automotive, capital goods, consumer goods and many other industries are equally facing the challenges just mentioned. No matter whether it's painting or powder coating of parts made of metal, plastic, wood and wood-based material, glass, composites or other materials.

What does resource efficiency mean with regard to the coatings industry?

It is evident that the industry has recognized the importance of operating sustainable and using resources thoughtfully and carefully, in particular now as energy prices are rising. There is a high level of awareness in coating companies of how, for example, optimized utilization of the coating equipment can reduce energy consumption, which in turn can increase the profitability of the line and improve sustainability. There is an increased interest – and urgent need – for smart solutions to save energy in coating facilities.

*Dr. Jens Heymans,
Managing Director
OptiSense GmbH*



What are the coating companies doing in practice to improve their environmental performance?

There is a wide range: Most are starting to effectively automate paint preparation and transport, as well as dispensing and paint changing, by applying new developments to make them more material efficient. But it's also the little things like optimizing the lighting or controlling the curing system properly. There are many ways for any company to conserve natural resources and save money at the same time.

What is the industry's potential for saving resources?

The savings potential in the surface industry is by no means exhausted. At one in two companies, further potential can be unlocked by making optimum use of what is technically possible. In the coating business, the current use of resources could be reduced by a good 7 percent on average. Test and measurement technology can be a driving factor in this process. Because it goes hand in hand with resource efficiency. Our OptiSense coating thickness measurement systems can help to quantify resource efficiency and exploit potential savings.

How exactly do you support the coating companies?

All our solutions measure contact-free, i.e. from a distance of a few centimeters without touching the surface. This allows wet and sticky coatings to be measured just as easy as soft and sensitive surfaces. In this way, you can determine very early in the process whether the coating has been properly applied. If a part is found to have an incorrect coating thickness only after it has been in the curing oven, cost-intensive recoating or rejects are the result. Thanks to our PaintChecker "early warning system", the coating company not only saves material, but also effort, time and ultimately costs. And is doing a lot for the environment at the same time.

Can you give an example?

One of the major European indoor crane manufacturers belongs to our customers. Among the hoists and crane components being produced are 50-meter-long and two-meter-wide steel double-T beams. These are equipped with a 250 μm paint coating.

If our customer coats the double-T beams with 300 μm instead of the required 250 μm , it quickly becomes very expensive. Our mobile PaintChecker solution checks the parts while the coating is still uncured. This check at the very beginning of the process chain helps to save a large amount of paint, i.e. it reduces material consumption and thus lowers the operating costs. For our customer, however, this is only one important reason for a contact-free coating thickness test.

Decisive factors are the potential energy savings and the totally reliable production control thanks to the PaintChecker coating thickness measurements. Due to their enormous size, the crane components are cured in a heated hall at a constant 26 degrees. This curing process requires two days if the coating thickness is correct. – But what if the part has been overcoated? If the beam has a paint thickness of 300 μm , i.e. 50 μm above target? Then it becomes critical for our customer, because the entire curing process now takes significantly longer, i.e. three days instead of two.

So an excessive coating thickness upsets the entire production process?

Exactly! The 50-meter-long double-T beam stands in the way and blocks the hall and the follow-up work. Heated spare areas must be kept free at all times for possible overcoatings, and the hall cannot be optimally used. The shipping company, which was supposed to pick up the huge part, has to leave empty-handed because the beam has not yet fully cured, and has to drive up again the next day. Incorrect coating thickness makes the whole production process extremely costly. For our customer, reliable process control is therefore the real added value of the OptiSense solution.

OptiSense is a global acting manufacturer of test and measurement systems, which has been focused on resource-saving coating thickness measurement for almost 30 years.

All solutions, whether mobile handheld devices or industrial testing systems, guarantee customers high resource efficiency and significant savings.



What trends do you expect to see in the future?

Excessive resource consumption or waste creation will be increasingly surcharged in the future. Since natural resources do not tend to become cheaper, it is worthwhile in any case to use them carefully. And this is exactly where we support the coating companies. Our resource-saving testing systems for industrial production environments enable our customers to take a straight path towards a sustainable future.

How does OptiSense address these challenges, i.e. what are you doing in terms of sustainability and resource efficiency in your own company?

Our contribution to resource conservation consists, on the one hand, in continuously reducing energy consumption, using essential resources as efficient as possible.

And future mobility is also a major topic for us: whether it's reducing long-distance-flights or gradually converting the company fleet to electric vehicles. By the way: We have been offering job bicycles and carpooling for years. We have also launched an OptiSense award for green ideas of our staff and started an information campaign to

promote news about "The green gene of OptiSense" at internal events. So for us, the year 2022 will again focus on process optimization, sustainability and resource conservation.

If you should put your bottom line in one sentence or slogan...

OptiSense sets the course for sustainable economics – good for the environment and good for the budget!

Thank you very much for this interview.

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