

Automated solution for optimized quality control

Vialit Asphalt benefits from Proline Promass I 500 for road maintenance products



The Vialit Group is an internationally acting company headquartered in Braunau am Inn in Upper Austria. A wide ranging product portfolio for fields of application in road maintenance is produced by about 50 employees. For this purpose, the Vialit Group has regularly invested over the past decades in dedicated, practically oriented research and development, efficient quality control, forward-looking production plants and state-of-the-art processing machines.

"Everything fits and runs very reliably. We are truly satisfied with the flow-meters from Endress+Hauser. The time savings gained during quality control are a huge advantage for us."

Daniel Edtbauer
Technology department manager
Vialit Asphalt GmbH & Co KG



Daniel Edtbauer



The company headquarters in Braunau am Inn

Vialit Asphalt GmbH & Co KG manufactures various products for road maintenance in its main plant in Braunau am Inn. Mixing semi-finished products requires exact measurement of flow rate and viscosity. Thanks to the installation of Proline Promass I 500 with Coriolis technology from Endress+Hauser, time-consuming manual sampling for quality control of the respective batch has been considerably reduced.

The customer requirement

For the broad product portfolio, bituminous semifinished products are pumped into a circuit and then mixed with various fillers. In this way, finished products are produced at temperatures from under 50 to over 100 °C (122 to over 212 °F). On normal days, the plant produces a total of about 100 metric tons. The employees fill it into various containers and export

it worldwide. To achieve consistently high product quality, they monitor viscosity and flow rate when pumping the semifinished product into the circuit. Previously, employees manually took control samples of the respective batch at sometimes at high temperatures and analyzed in the lab. The time required for that amounted to about two and a half to three and a half hours per workday.

In addition, there is a technical challenge: the fluid is non-Newtonian. Thus, the viscosity is not constant, the flow behavior changes with the shear force acting on the fluid. Moreover, the measurement during the process is taken at high and in the lab at low temperatures. Due to these circumstances, the Vialit Group was searching for an automated solution for continuous quality control directly in the process.

Our solution

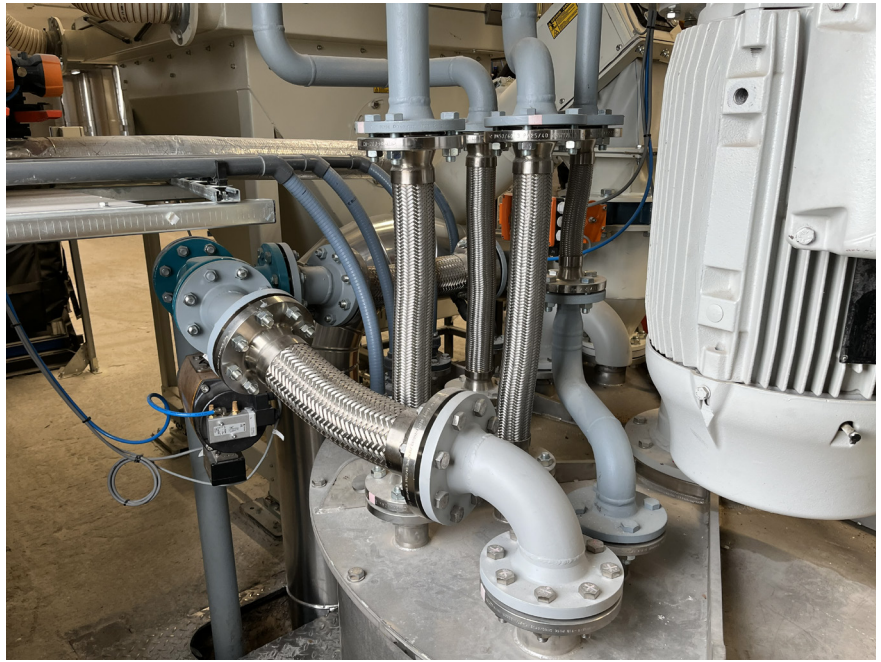
With Proline Promass I 500, the product quality can be monitored in real time. The Coriolis flowmeter with a straight, single-tube design offers not only mass flow, density and temperature measurement but also in-line viscosity measurement. The remote transmitter additionally convinces with maximum installation flexibility as well as operating safety and reliability under demanding ambient conditions.

Due to the non-Newtonian medium, a viscosity/temperature curve was stored in the measuring device during commissioning and a factor was set in the control system. Whereas the standard procedure used to involve obtaining measured values at 40 °C (104 °F) after a cooling process, now Promass I 500 also allows for converting measured values at considerably higher temperatures.

The result

- The number of manual viscosity measurements can be significantly reduced.
- The time savings per production day amounts to about three hours.
- The process control and monitoring are optimized by the new solution and enable a prompt response to deviations.
- The effects on viscosity of the product resulting from the addition of fillers become visible immediately.

Promass I 500 delivers reliable viscosity values.



Various fillers are added in doses during the process.



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