

Press release

‘Hot or not’: BPW monitors asphalt delivery using intelligent sensors

- **BPW ThermoMonitor precisely measures and calculates the asphalt temperature in thermally insulated dumper trucks**
- **An innovative calculation method determines asphalt temperature more reliably than conventional piercing thermometers**
- **A wireless printer provides a measurement report for transfer directly to the construction site**

Wiehl, 28.02.2019 --- Transporting and delivering asphalt is a delicate business: the mix, which is at a temperature of around 180 degrees, is susceptible to wind; too much oxygen and temperature losses can ruin its quality while on the road. At the Bauma trade fair in Munich (8–14 April), BPW will present an intelligent sensor system for dumper trucks that replaces the current method of measuring temperature using measuring lances which is prone to errors, while also documenting correct delivery in accordance with the law.

A large proportion of road damage can be traced back to poor-quality asphalt. What laymen do not know, however, is that the cause is often down to transport damage, since asphalt is a rather sensitive mixture in its roughly 180-degree-hot, semi-fluid state. Since 2017, legislation has therefore stipulated that asphalt must be covered and thermally insulated during transport, and that the asphalt temperature must be documented on delivery. The previously common method of measuring by inserting a thermocouple into the unloaded asphalt is both complex and error-prone. Above all, however, it is only after unloading that it can be determined whether the asphalt is within the prescribed temperature range and may be laid.

‘Hot or not?’ – BPW is now clarifying and documenting this question with an innovative method even before unloading: the new BPW ThermoMonitor obtains temperature data from four measuring points on the outer wall of the dumper truck and calculates the average temperature of the loaded asphalt from this. In comprehensive field tests, this combination of sensor technology and mathematics not only proved to be considerably more rational, but also more reliable than conventional measurement methods. The system can be wirelessly connected via Bluetooth to an optional printer so that the driver can attach documentation of the asphalt temperature to the delivery note on-site.

‘The measurement on the outside wall of the dumper truck alone does not lead to a meaningful result’, explains Dr Markus Kliffken, Head of Innovation Management and member of the BPW Board of Management. ‘Our calculation model takes into account the physical properties of the asphalt-loaded thermal dumper truck and the temperature gradient between the truck wall and the core temperature. We were able to comprehensively demonstrate its reliability in practice in test runs and on motorway construction sites.’

The BPW ThermoMonitor measuring system is offered ex works by leading vehicle manufacturers and can also be retrofitted at any time. It comprises a control and display unit, four temperature

sensors and the corresponding connecting cables. A Bluetooth adapter and a wireless protocol printer are also available as an option.

BPW will be presenting the ThermoMonitor for recording and precisely calculating asphalt temperature in thermally insulated dumper trucks outside on stand FN.827/9 at Bauma.

Picture caption: The display unit shows the temperature of the individual sensors as well as the average temperature. (Source: BPW Bergische Achsen KG)



About BPW Bergische Achsen Kommanditgesellschaft

BPW Bergische Achsen Kommanditgesellschaft is the parent company of the BPW Group. With over 1,600 employees, including around 120 trainees, the family-owned company has been developing and producing complete running gear systems for truck trailers and semi-trailers at its headquarters in Wiehl since 1898. BPW's technologies include axle systems, brake technology, suspension and bearings. BPW's trailer axles and running gear systems are in use in millions of vehicles around the world. An extensive range of services also offers vehicle manufacturers and operators the ability to increase the efficiency of their production and transport processes.

www.bpw.de/en

About the BPW Group

The BPW Group researches, develops and manufactures everything needed to ensure that transport keeps moving and is safe, illuminated, intelligent and digitally connected. With its brands [BPW](#), [Ermamax](#), [HBN](#), [HESTAL](#) and [idem telematics](#), the company group is a preferred system partner of the commercial vehicle industry around the globe for running gear, brakes, lighting, fasteners and superstructure technology, telematics and other key components for trucks, trailers and buses. The BPW Group offers comprehensive mobility services for transport businesses, ranging from a global service network to spare parts supply and intelligent networking of vehicles, drivers and freight. The owner-operated company group currently employs 7,200 staff in more than 50 countries and achieved consolidated sales of 1.48 billion euros in 2017. www.bpw.de/en

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