

## **Monitoring livestock: Wevo products protect sensitive components**

**Ostfildern-Kemnat, Germany. Smart technologies for monitoring livestock enable the early detection of diseases, increase animal well-being and also help to reduce costs and labour. This is achieved through greater use of sensors, RFID chips, microphones and cameras. However, in some instances, the devices are subjected to extremely varying conditions, environments and mechanical abuse – especially when attached directly to livestock. In order to ensure a long service life, Wevo offers tailor-made potting and encapsulation materials for the growing global market of intelligent monitoring solutions to reliably protect sensitive electric and electronic components.**

Whether it's movement and activity, eating habits, body temperature or stress levels – through modern technologies within the farming sector, it's possible to monitor livestock 24/7. This ensures and optimises productivity, product quality, fertility management, nutrition and feed, animal identification, and catering to the animals' health and general well-being. As a less invasive method, more and more wearable devices are being brought to the market – among these, for example, are so-called e-tags and smart tags.

Being attached directly to the livestock, these wearable applications pose extreme challenges to the materials used, as they are exposed to changing climate, surface and ground conditions – hot or cold, wet or dry, or soiled stable surroundings. Resistance to liquid manure and animal waste is an important factor, as is resistance to disinfectants and other chemicals. In addition, there is the extreme mechanical and potential physical abuse caused by an animal that can weigh in excess of 500 kg. With individually adapted products based on polyurethane, Wevo offers solutions for the protection of electric and electronic components while withstanding harsh environmental conditions in livestock operations.

### **Wevo materials based on polyurethane for the use in agricultural applications**

The potting and encapsulation materials, combined with excellent chemical resistance, seal the electronics and minimise moisture ingress. The superior adhesion to most substrates ensures secure mechanical and structural integrity, preventing premature field failures due to fractures or periods of immersion. In addition, Wevo's polyurethane materials are available in a wide range of elastomer properties, from soft to hard. This accommodates potting and encapsulation of delicate components, like accelerometers, antennas and batteries, and provides dampening and vibration

## Press information

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protection during operation, whether dynamic or static.

Wevo's products for the farming and agricultural sector may be found in ventilators and fans, air flow sensors, dielectric soil moisture sensors, electro-chemical sensors, location sensors, optical sensors, wireless beacons and within the whole wireless sensor network. For irrigation and water management, our materials may also be found in devices such as control panels, filters, flow meters, pumps and sensors, including WRAS-approved material for drink water and food production. Wevo's products can be employed for numerous applications in agricultural and horticulture lighting, including in the field of indoor vertical farming and modern greenhouses.

### **About Wevo**

*WEVO-CHEMIE GMBH is an international, independent, family-run chemicals company headquartered in Germany and with further companies in Asia and the USA. Wevo develops and manufactures innovative potting applications as well as special bonding and sealing applications based on polyurethane, epoxy and silicone – primarily for applications in electrical and electronic components. Wevo products protect sensitive components against chemicals, vibration, foreign bodies, dust, moisture and high temperatures.*

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