



Cure Sensors: Flexible (left) and Durable (right)

OPTIMOLD

The **optimold** system is capable of measuring the temperature and the electrical resistance of a resin with a single sensor that is in contact with the sensor's sensing element in order to extract real-time information of resin's state such as degree of cure, Tg, viscosity, mixing ratio/quality or storage aging.

- **Electrical resistance measuring range:** 10^4 - $5 \cdot 10^{13}$ Ohm
- **Temperature measuring range:** 0°C to 250°C
- **Sampling rate:** 0.5-2 Hz

Advantages of optimold System over other systems in the market:

- Multiple sensing without multiplexing (one **optimold** per sensor)
- Integrated measurement of electrical resistance and temperature without extra holes
- Significantly faster measurements (able to measure minute-cure epoxy and polyurethane resins)
- No need for calibration before start measuring
- Continuous check of sensor's connectivity and operation
- 2 Relay outputs 0-10 V (optional)

SENSORS

Synthesites offers a large of durable and disposable sensors that may be used as in-mould, in-line, in-gate or in-pot sensing of resin's resistance and temperature. The durability of the rigid sensors, depending on the application, can reach thousands of mouldings without any special treatment, cleaning or maintenance.

The main characteristics of the durable sensors are:

- Ultra-sensitive sensing elements for electrical resistance and temperature (using Pt100)
- **Max working temperature (continuous):** 200°C
- **Max working pressure (continuous):** 90 bar

The disposable (flexible) sensors can be used for vacuum bagging or infusion and inside the laminate for development purposes. It can withstand the same temperature and pressure as the durable sensor.

OPTIVIEW

The **optiview** software has been developed specifically for the **optimold** and the **optiflow** systems for data collection of one or more monitoring systems, depicting the measured values on the screen, saving the measurements in files automatically, saving graphs and data files, or retrieving past acquisitions for comparison or post-processing.

optiview operates in Windows OS XP/ Vista/ Windows 7/ Windows 8/Windows 10.