

Injection moulding and gas-assisted injection moulding process assessment by energy monitoring

A J Dawson, H-S Rajamani, P D Coates
Polymer IRC, University of Bradford, Bradford UK

The potential for process and production measurements on injection moulding machines using non-invasive, energy measurements is reported. A comparison of electric and hydraulic injection moulding machine performance is given. It is shown that energy monitoring can provide equivalent process data to that provided by nozzle pressure and screw displacement sensors. Energy monitoring has also been used in preliminary studies of the gas-assisted injection moulding process. It is concluded that energy monitoring may be used for injection process control, as well as total process energy monitoring.