

Integrating RFID in Fibre-Reinforced Plastics

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Summary

The number of industries using fibre-reinforced plastics (FRP) as basic material of their products is increasing steadily. FRPs are used in products ranging from ski poles to aircrafts due to its mechanical characteristics and its light weight compared to known materials like aluminium or steel. A known obstacle preventing a larger industrial application is the complex production process and therefore inevitable documentation and quality process. In order to track FRP during the production as well as in the associated logistics Radio Frequency Identification (RFID) may be used. Integrating the RFID transponders in components of FRP is still a challenge. In this paper the effects when combining selected types of FRPs with RFID transponders using different frequencies are investigated and evaluated.