

Recyclable printed circuit boards

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The National Physical Laboratory (NPL), along with partners In2Tec Ltd (UK) and Gwent Electronic Materials Ltd, have developed a printed circuit board (PCB) whose components can be easily separated by immersion in hot water.

The work was part of the ReUSE project, funded by the UK government's Technology Strategy Board.

The ReUSE disassembly process is demonstrated in the video below.

The aim of the ReUSE (Reuseable, Unzippable, Sustainable Electronics) project was to increase the recyclability of electronic assemblies. The partners designed, developed and tested a series of unzippable polymeric layers which, while withstanding prolonged thermal cycling and damp heat stressing, allow the assemblies to be easily separated at end-of-life into their constituent parts, after [immersion](#) in hot water. The project demonstrated a 90% recyclable inverter circuit for an electroluminescent lamp.

Provided by National Physical Laboratory

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