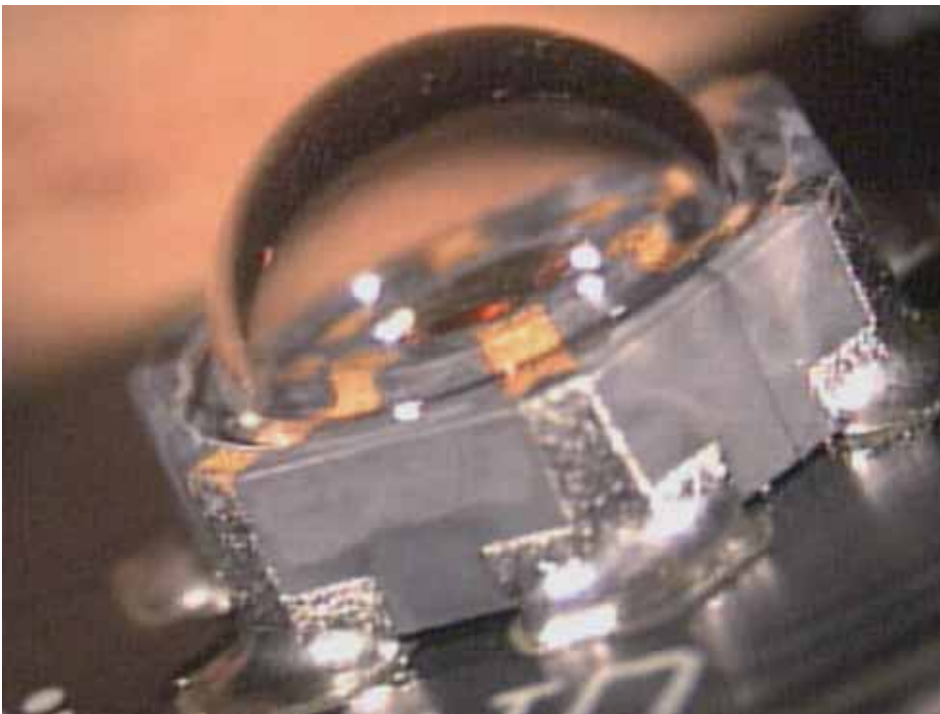
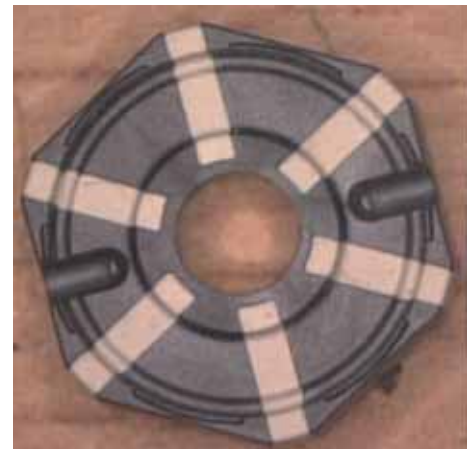


Moulded Interconnect Devices

A Moulded Interconnect Device can be defined as a substrate (often injection moulded) which incorporates a conductive pattern and combines mechanical and electrical functionality. MID processes nowadays typically consist of three process steps: moulding, metallization and patterning. Surface as well as volume MIDs can be distinguished.



Assembled high power LED



2 shot Moulded LED housing

Example: MID LED carrier

MID technology combines the benefit of a large degree of freedom (due to injection moulding) with a high level of electrical function integration. The advantages of MID technology are the reduction in assembly, miniaturization and more robust products due to the lack of separate connections. MID technology can be used in a variety of products and markets (automotive, consumer electronics, high-end equipment). The development focus at the Precision Manufacturing department of TNO is on a larger degree of freedom (from surface to volume), the enlargement of the range of materials that can be used and the reduction of process steps (simplification of manufacturing process).



Mass manufacture

TNO-MID Technology

- Complex moulded objects with integrated 3D electrical circuit
- New “un-thinkable” design possibilities
- 3D electronic objects produced very cost effective
- TNO has all MID technologies in house
- TNO one-stop-shop for MID solutions