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Injection Moulding of Smart Card Bodies

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Smart card bodies are produced in two different procedures. The traditional process is to print a PVC-sheet with the artwork of the card and then to laminate, punch the card bodies from the sheet, mill the cavity for the chip module and implant and personalize the chip.

The more modern process is to make the card bodies by injection moulding mainly from ABS but also from PC or PS and by the injection moulding process directly include the chip module cavity in the card body. This process is an extreme thin-wall moulding procedure taking into account the ratio of the card length and thickness and especially the very thin area of the chip bottom under the module.

This thin-wall process combined with very tight tolerances which were taken over from the traditional punching procedure make the injection moulding of smart card bodies a real challenge.