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### **Plastic integration of shape-memory components**

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#### **Abstract**

The integration of an SMA-element into a technical product and the transfer of an actuating force require a compound of SMA-elements and a clamping location. So far such a compound was made either by a material bonded laser weld or by a frictional connected bolted or crimped connection. The disadvantage of laser welding is that it can affect the SMA-actuator in a negative way due to the formation of a weld zone. Furthermore, the actuator method is complex and expensive, too. A bolted connection is only partially applicable in this case due to a lack of space and also for financial reasons.

An alternative connection method is described within this abstract, the injection of the SMA-elements into plastic. Therefore, the SMA-element is integrated into the plastic injection casting process. The form of the connection can either be material bonded or form connected.